ABOUT Frank's VS Info.

I have written this VS manual For Newbees/Dummies style manual on the VS2480. Roland Tech Support taught me how to use mine in 2002 and I have typed up step by step info on most of the features I have learned. I have had people who were fed up and selling their VS tell me that this info "saved the day." so I send it out FREE to VSPlanet members and VS2480 owners. It will work with the VS2400 and VS2000, I am told.

The second doc is a CONTENTS doc and the third is a QUICK START guide titled "Easy VS Info" that takes you from start of project to finished CD, step by step in 9 easy pages. Roland's manuals do not really give you step by step instructions on how to use the VS with the external VGA monitor connected so I wrote this manual to help other Newbees learn to use their VSs like they do a computer with a mouse. A lot of the language is in "plain English" and laid out very simple so just about anybody can follow it. You will need to have a PC style Monitor, mouse and keyboard connected to your VS to get the most out of these word docs.

If you have any questions or need another copy sent, just email me at Fcgjabq@aol.com
I am always updating this info as I learn more so you can also come back for updated copies. You will find that I have covered just about everything I have needed to know using mine since 2002. I cover the basics then have extra docs that take steps more in depth as well as links to info on line and added info from post that I have found helpful on VSPlanet.com.
Start with the "Easy VS Info" and good luck, Frank.

Last updated June 16th, 2008

CONTENTS OF VS DOCS

Easy VS Info…Is an 8 page start to finished CD **Quick Start** doc to get you up and recording as quickly as possible and covers tons of good things to know. If you read nothing else at least read this one to teach you all of the basics about the VS. This info was written using a Monitor, keyboard and mouse, you need them too.

VS2480 SHORT CUTS….Shows you the VS shortcuts as well as shortcuts you can use on a PS/2 keyboard with the VS. IDHold for different views on LCD and VGA.

VS 16bit w MTP...How to get 16bit .wav format files out of the VS2480 while in MTP 24bit mode, from Brett's site on line.

VS & PC Progs…Shows you how to use PC programs like Acid and Wavelab to export .wav files from each other to disc or into the VS.

VS & RPC-1Setup…Is just that, how to setup the VS to work with an RPC-1 card & PC.

VS BitsSamplesWavsCDA... explains what windows burn what files in what bit rate, sample rate and file format. CD-R WRITE window, TRACK EXPORT window, Mastering Room and Project modes and settings that affect bit and sample rates.

VSBkUPFmtRcvy…Covers Backups, Formatting your hard drive and recovering projects. Installing hard drives and models to use. Also formatting an external SCSI and links to VS2480CD to DVD Conversion and models used.

VS BPMwTmpMp…Finding the BPM of a song using the TEMPO MAP.
How to use the Metronome with recording and recording a click track.

VS CompEQ PRM EDIT…How to assign the PAN knobs to become the parameters for the compressor and EQ for that track.

VS CompressExpGate…How to use the VS compress with Expander to create a GATE. A brief example of how to use the Compressor.

VS CpyMveExchExprt…How to edit with the VS, copy, move, erase, cut audio, make a song shorter or longer, A-Punch, copy a song to another drive/partition, track exchange one track with another and how to copy parameters, Dyn, EQ & Level settings from one track's or input's Ch-Edit page to another. Also how to export .wav files to burn to CD and import them as well as IMPORT tracks and master tracks from other projects. Also, converting 48k tracks to 44.1k tracks using VS to PC to CD to VS. Also, CD Capture.

VS Danielo Data Recover.... So you powered down without saving the project or somebody unplugged your VS, or lightening struck, do what's in this doc.

VS DAO LIVE Rcdng…How to burn a live recording to disc using Disc at once. Also, how to separate songs into their own one song projects, in brief.

VS De-esser EFX…How to use P022 Vocal Multi as a De-esser.

VS EFFECTS... How to patch in effects and route them as INSERT or LOOPED effects, on INPUTS or TRACKS also some on EQ & Compression.

VS EQing Bas&Kic…Some tips on how to use the EQ Graph to mix the bass guitar and kick drum so they both come out in the mix. Also, how to use the ANALYZER to identify what frequency range an instrument or vocal is made up of.

VS ERASE Silnt pts…How to get rid of the data between the vocal parts and solos, save on disc space by erasing un-wanted data, silent parts between takes etc.

VS External EFX…How to setup the VS to work with external effects units. From VSP post by members.

VS INSERT EFX…INSERT effects explained in more detail and the 4 positions of the EFX button.

VS Install HD in VS2480CD... Describes how to install a new hard drive in the CD model VS2480, provides a link to a PDF with pics to help with the install, a brief how to do and tools needed and what brands and specs to look for in hard drives.

VS LEVELsRecMSTclkTrk…Setting the recording levels at -12db to leave headroom for mixing, setting mastering levels, using 3card MTKs and how to use a click track. From VSP members.

VS Mastering CDs for Newbees... Several tips on finishing off your CD, song order, keys, levels, tempo and setting the right mood. Adding the final touch to your CD.

VS MasteringKarl…A VS-Planet post on mastering by Karl Lakestone.

VS MST & BURN…Mastering and burning master disc in more detail. Protecting your master CDs with "Digital Copy Protect."Also, how to master 24bit, 96k projects in the VS.

VS MST DAO… Mastering the MTP, 44.1k 24bit Master Tracks using DAO (Disc At Once) by Importing them into a new project and adding track markers.

VS MST Fade AutoMx…VSP setting up a master fade-out using Auto-Mix.

VS MST TRKS Normalized…How to Normalize master tracks or any track.

VS MTK USE…Different VSP Members give pointers on how to use the MTKs/Mastering Tool Kits in the VS8F-2 cards and 3cards.

VS Pitch Correction... How to use the AUTO-TUNE plug-in to correct pitch and how to use the VS2480's EFFECT P022 Vocal Multi to correct vocals and guitars.

VS PRE POST Mix…How to use the PRE and POST fader settings when reading the meters durning recording and especially mixing. Also how to use the ATT knob to control some recorded levels.

VS Preamp Test…How to test your VS's preamps to see if they need the "FIX" to get rid of harmonic distortion.

VS REC & MIX TRKs…How to use EQ, Compression and mix your tracks better. How to use the PRE and POST settings right.

VS RegionArrange…How to use Region Arrange by VSP member Karl Lakestone.

VS RPC1 PC Setup…More on how to setup the VS & RPC-1 card from Brett's site.

VS ScanDsk & DATA Recvy…VSP post on how to setup the PC to scan a VS hard drive for problems, I have never done this, do at your own risk. Also, Brett's info on VS Data Recovery.

VS SOLO Trk with EFX… Explains 3 different ways to SOLO a TRACK with looped EFFECTS like reverb so you can set levels of the effects and mix the track alone.

VS Split prjt COMBINE…Project Split & Combine by Karl Lakestone on VSP.

VS SUB MIXESbounceLoop…How to bounce tracks with effects, bounce multiple tracks with or without effects and how to create SUB MIXES for drum tracks or backup vocals. Bouncing Effects with tracks and bouncing using the Mastering Room How to initialize and clear EZ Routing settings.

VS Time Delay DBL Trk…Time delay and how we perceive what we hear from VSP.

VS Updating & Upgrading…How to update the VS2480HD, CD & DVD model VSs properly, info from Roland's site. Checking the OS. Also, info on converting VS2480CD to DVD, force initialze/format button sequence and diagnostics check sequence.

VS Vocoder Effect… How to setup the vocoder effect in the VS8F-2 card properly.

VS VS8F3 InsFmt&Plgn…How to install a VS8F-3 card and plug-ins and use plug-ins, formatting for installing.

VS V-TrkOptiUndoPnchRgnEtc…Covers V-Tracks and V-Track maps, Optimizing projects, using UNDO and Auto-punch recording. Also Region Copy and some editing. LOCATORS and SCENES.

VS WAVE DISP Incr…How to use the Wave Form and the Wave Display to edit the wave form and the jog wheel to move in small increments.

XP PC SETUP AUDIO… Shows you some of the tweaks for XP to setup a PC for use with Audio programs so less CPU power is used and the aps run faster.

THE GOAL WITH THE VS2480 IS THIS: by Frank Griffith

1) Start by **LEARNING** how to record songs with the VS. I record one song per project to keep things simple.
2) Once you have learned how the **RECORDING** stage works with one song, move on to the next, and the next till you have enough songs for a CD to present to listeners.
3) Now comes the **MIXING** stage, adding EQ, Dynamics, effects and panning. Once you have the songs mixed and ready for CD move on to the next item.
4) Learn how to **MASTER** your songs in the **MASTERING ROOM** using the MTKs, (mastering tool kits) to have them ready for burning to CD.
5) Now open each project with a completed song and learn the **BURNING** stage of the process, burning one song/project at a time to CD using the TAO (Track At Once) method. Now let's begin.

NEW PROJECT: (Create a "Practice"song/project) by Frank Griffith

Click on PROJECT> select New> then in the PROJECT NEW Window Enter a name in the Name field for the project with your PS/2 keyboard and if MTP and 44.1 is what you want then just click on "OK". Also, if you want to copy Utility settings or Mixer Parameters from the current project to this new one then check mark those too, if this is your first project then don't bother with it. *If you plan on presenting your music to listeners on Audio CDs then it is smarter to record at 44.1k in the first place rather than at a higher sample rate like 48k and convert it back to 44.1k on CD. Converting sample rates will result in a loss of audio quality. (VS manual pg 96.)

SETUP AUDIO

Once your new project is open and on the HOME page click on EZ-Routing> Routing View> for that screen to open. This screen is sectioned off into 4 quadrants. In the upper right hand quad you'll see the OUTPUT ASSIGN. Let's setup the headphones, master and monitors so they all work independently. *If you have already been messing around with this screen INITIALIZE the routings by clicking on "F1(IniPB)" and "F3(IniTra)" to set all the virtual cables to their default settings so later when we are routing tracks and inputs it's less confusing..

If you have digital monitors then find the white lettered COAXOPT/LR/LR black virtual cables with tiny black squares on the ends. They come linked in pairs on the top right of this quad. With your mouse grab (L-Clk & Hold) the tiny squares and drag the black lines down to connect them to the MON white lines. They will turn blue when selected. If you have regular analog monitors the black lines from MON/7&8/L&R should be connected to the MON white lines as default and the MST/LR/1&2 black to MST white lines as default. *Some of this maybe set by default but it's good to know.

Now find the white lettered PHONE/1&2/LR/LR black squares and click and drag those up to the MST white lines to connect them. Now all of your audio can be controlled independently with the 3 knobs and RED Master Fader on top of the VS unit. The White one with RED top is for the Monitors, the White ones with the blue tops are for the Headphones 1 & 2. You will find these to the left of the 3"x 5" VS LCD screen. Now click on HOME in the top upper right of the screen.

INPUT & TRACK FADERS SETUP CH-EDIT=Channel edit
Let's find these very important buttons. They are the 4 buttons above the MASTER fader in a white background labeled FADER. Press the one labeled IN1-16/SOLO, it will turn yellow. Let's set all the faders to 0db. To the right of the RED/MASTER fader is a button labeled CLEAR, Press and hold down CLEAR while running a finger across all of the CH-EDIT buttons for each FADER [There are 2 buttons above each FADER, one is the TRACK STATUS button and the one above that is the CH-EDIT button]. This will cause all of the FADERs to jump up to UNITY/0db GAIN. Now your inputs are ready and the input levels can be controlled by using the TRIM/SEN knobs and the blue PAD buttons.

Now Press the FADER button labeled IN17-24/AUX MST. The FADERs change to INPUTS & AUX Busses. Let's set these to 0db. Now press & hold CLEAR and run your fingers across the CH-EDIT buttons for these faders, 17-24. They should jump to UNITY/0db GAIN. Notice, your AUX Busses Faders are already up for routing. *As I said before, some of this is set by default.

Now press the FADER button labeled TR17-24/FX RTN. The Faders change again. These Faders should all be at 0db UNITY GAIN as default, if not bring these up too. This sets up the effects returns with the aux busses so routing LOOP EFFECTS later is easy. Sometimes people move this and that and press this and that before they know what they're doing so we're just making sure things are set right. Note: Bring all INPUT FADERS down before mixing after all recording is done! Also, Yellow Fader buttons for INPUTS and GREEN for TRACKS.

Now press the FADER button labeled TR1-16/Master Edit. Now we're back to your track Faders. Press and hold the CLEAR button and run your finger across the CH-EDIT buttons again. Now all tracks are up and ready. Set Master RED Fader at the 0db mark.

INPUT LEVELS
To check an INPUT and get a level lets plug a mic, guitar, bass or keys in to the INPUT # 1 on top of the unit. It's the first of the 16 TRS in jacks. Now with your mouse click on the button at the bottom of the screen marked "F2 IN MIX". This will change the METERS to read the INPUT levels. As you do this, watch the meters in the middle of the HOME screen change. Make sure the meters are on POST for now. Now play something or sing something and slowly turn up the TRIM/SENS knob until you get a good level.

If the signal is too low turn the SEN down/left and press the blue PAD button above it and raise the SENS knob and set the level again. I shoot for -12db to -6db to leave HEADROOM for Dynamics & EQing later on. Try to get the best level you can with the PAD ON. NOT 0db! In analog gear you want 0db but with the VS you need -12db with peaks around -6db. 0db and over can cause distortion and leaves no room for mixing.

RECORD LEVELS
Now click on the "F3 TR MIX" button at the bottom of the HOME page. The METERS change to read the TRACK levels. Press the TRAK STATUS buttons for each track until

they are all GREEN for PLAY. Now press TRACK1's TRACK STATUS button until it is flashing RED for record, or hold down the RECORD button and press the tracks STATUS button to arm it. Play the instrument you have plugged into input 1.

The TRACK METERS, on POST, should read the same as the INPUT METERs did. You can click back and forth between "F2 IN MIX" & "F3 TR MIX" to check it. Once the level is set you can press the big RED, with white dot, Record button to arm it and when you're ready to record Track 1 press PLAY. Record some and press STOP and then ZERO. Note: Track Status button, RED=Recording, Flashing RED=Armed, Not lit=OFF and GREEN=Ready to play. CH-Edit Button GREEN=Displays CH-Edit page, not lit= back to Home screen.

CHECK TRACK
Now press TRACK1's STATUS button till it turns GREEN for PLAY and press PLAY. You should hear your track playing back what you just recorded. If you don't like what you recorded or it's a test take you want to get rid of, press UNDO> in the window that opens it shows your recording and time, press ENTER and it erases it from the list. Now you're ready to try again or try something else. Once you have recorded a good keeper track, then move on to repeating this process to record the rest of your tracks in this song/project.

RECORDING A GUITAR W/ Hi-Z INPUT
Usually you plug guitars into the Hi-Z Input # 16 and turn it on by pressing in the blue pad-like button next to it. If you want to do this then the INPUT is number 16 and to send the guitar to TRACK 1, click EZ-Routing and select Routing View, when the View opens look in the lower left QUAD and find INPUT MIXER with 1----24 in white numbers and the RECORDING TRACK numbers 1----24.

Find INPUT 16 in the INPUT MIXER and click on it with your mouse, it turns blue, now click and drag on the number 16 in the INPUT MIXER block and drag the blue line the number 1 on the RECORDING TRACK block leaving a blue square around RECORDING TRACK 1. Now INPUT 16 is connected to TRACK 1's Recording Track to record it on Track 1. Now click HOME. Return to the section above, "Recording Levels" to record the guitar if need be. Record a bit of guitar for this next section. (Or bass.)
*Another way to route the INPUT to the TRACK would be to HOLD down track 1's TRACK STATUS button , a window opens, keep holding the status button down and now press the CH-Select button above Fader #16.

LOOP EFFECTS or Send & Return Effects/ Patching an effect
Let's add a Reverb to the recorded TRACK 1. Click on EFFECT> EFFECT1> the EFFECT1 window opens, click "F1 PATCH" Find "[P001 :Reverb2]" click on it to highlight it and click on "F5 SELECT". Now Effect1 is PATCHED with REVERB P002. Click "F6 EXIT" twice to back out of the EFFECT window. Since all of the AUX Faders and FX RTN Faders have been brought up to UNITY/0db we can skip that step. [See "VS EFFECTS.doc" for more on this.]

Now, play the recorded guitar track 1 so we can hear it and press the CH-EDIT button for TRACK 1. The page changes to Dynamics/Compression and EQ Parameters with graphs. At the bottom of this screen in the "AUX SEND" area turn up the AUX1 knob until you hear the reverb. About -15db on the AUX1 knob and above will add REVERB you can hear. It should already be ON/yellow and PST/blue. Each TRACK and INPUT has a CH-EDIT button and page and each CH-EDIT page has AUX1 thru AUX8 for your EFFECTS1 thru EFFECTS8.

If you had PATCHED in your REVERB P002 on EFFECT3 then we would be turning up the AUX3 knob to add reverb to the TRACKs or INPUTS. With the REVERB LOOPED, you can add as much of this reverb to each track 1-24 that you want by pressing its CH-EDIT button of the TRACK and turning up the AUX knobs and you can do the same with INPUTS but you have to connect the FX RTN from the effect to the destination track in EZ-Routing. Do not press HOME yet, stay here.

INSERT EFFECTS

INSERT EFFECTS are different. Instead of the AUX knobs you click on FX1 thru FX8 under the EFFECT INSERT to the left of the AUXs. You can only INSERT an EFFECT to ONE track at a time on the first position or 2 using the Left & Right positions of the FX1 thru 8 buttons. [See the "VS INSERT FX.doc" for more on this.] You do not turn up the AUX knobs, just click on FX1 to INSERT the EFFECT to this Track1. Each Track has this on its CH-EDIT page too.

ADDING EFFECTS TO INPUTS

You can Press Fader button IN 1-16 then the INPUTs CH-Edit button or Under MIXER at the top of the screen. Click on MIXER> "CH VIEW <INPUT>" and select "IN 16" to bring up the CH-EDIT screen for INPUT 16, that's your HI-Z INPUT 16. Now you can INSERT or LOOP to INPUT 16 and INPUTs 1 thru 24 depending on which you want. This is how you can get to the CH-EDIT screen for all of the INPUTs 1 thru 24.

Once you loop the effect, go to EZ-Routing> Routing View> and in the bottom left hand quad find the FX RTN 1 thru 8 block and connect the FX RTN number that corresponds to your Effect number and connect it to the destination TRACK on the Recording Track block that your INPUT is routed to. This completes the LOOP. You only connect the FX RTN virtual cables to the INPUTS or to a destination TRACK when bouncing with EFFECTS.You do not connect the FX RTN cables to TRACKS that are already recorded. Now you click HOME.

TO EDIT EFFECTS

Click EFFECT at the top of the screen, the select the EFFECT1 thru 8, in out case EFFECT1, here is where you can click on "EDIT" in the EFFECT window. Usually there are several boxed areas for effects in a chain but not on all. You can turn them on and off by clicking the small square in the box next to OFF. To get to the parameters just click, or double click on the name of the box in the chain and the parameter knobs will show up for that box in the chain. Click EXIT as few times to get out of the EFFECTs area.

After adding Dynamics/Compression, EQ and EFFECTs to your tracks the PRE levels may rise above 0db. While playing back your tracks in the mix, set the METERS to PRE instead of POST. If any are pegging, slamming 0db, go to the CH-EDIT screen for that track and turn the ATT knob counter-clockwise into the MINUS area to bring the PRE METTERS Level down to and below 0db or readjust the Dynamics and/or EQ. The METERs are in Pairs of odd and even on the CH-Edit pages. Do this for each track that is OVER 0db on the PRE Meter/Fader setting.

Once they are all below 0db then set the METER/Faders to POST and re-mix your song to record to Master Tracks. Note: Bring all INPUT FADERS & SENS down and turn off the PADs to prevent adding noise to your mix before Mastering! Also, be sure you have all of your tracks recorded and the song complete before moving on to the mastering room and the mastering stage. You can master one song and burn to CD but most record several songs, one per project, then open each project one at a time and burn the mastered stereo tracks to disc, one at a time

REMEMBER

Remember, in the EZ-Routing> Routing View> when we connected INPUT 16 to TRACK1, this means you turn up the SENS for 16 to set the track level/meters for TRACK1 to record. After tracks are recorded you can set their mix level with their faders. You can also add Dynamics/Compression & EQ to each track by pressing their CH-EDIT buttons to get to that screen. Just turn the EQ on or Compression and adjust away. Keep in mind, less is more.

MIXING RECORDED TRACKS

I always start with my drums, if they're stereo loops then it doesn't take much to get them sounding right. I add a little EQ on the top to brighten them up and a little on the bottom to add thump to the kick. Once the drums sound good soloed, then bring in the Bass and get it sounding good soloed and then with the drums, then the rhythm guitar soloed and with the rest and repeat for the rest of the tracks, vocals, leads etc.

To hear looped effects with a track you have to mute all other tracks, a track soled will not play the looped effect or click on the MIX button on the CH-Edit page of that track. Try to PAN all your tracks so that each occupies its own space in the stereo field. Do not overlap tracks, this can make the mix muddy. Try to place the instruments left to right as they would be on a stage playing live and use reverb to place them front to back. Once you have your tracks sounding good, if there's a track that needs to stand out more, try just turning on the Compressor with its default settings. *See "VS EQing Bas&Kic.doc" for more on EQing etc. **Also, remember to bring down the INPUT faders on IN1-16 and IN17-24 before mixing so no stray signals or mics that may still be hot get into the mix and turn down the SENs and turn off all PADS.**

PHRASE NORMALIZE

If some of your tracks have high peaks and low lows, where there is too much meter movement to control them when setting levels for mixing. You can "Normalize" the track

or tracks and it will act as a sort of limiter to smooth out the levels of the track or tracks. To do this click on TRACK> PHRASE NORMALIZE> a small window will open and you can place a check mark the track or tracks to NORMALIZE and click "F5 OK" and it will begin the process. It'll take several minutes. I seldom use this feature. When done click EXIT, now check your tracks.

MASTERING TRACKS

Go to CD-RW/Mastering> Mastering ROOM> now the METERS area becomes the Mastering room. Click Mastering Room "ON"/yellow. Click the STATUS button from GREEN/PLAY to RED/Record. In the V.TRACK window you should see 23/24-16. That's the track you are recording to. (Click on 23/24-16, If you want to select other V-Tracks to record too, you have 15 sets of 23/24 V-tracks you can use.) If you have an MTK (Mastering Tool Kit) patched into an EFFECT like EFFECT1 then click on FX1 to turn it yellow and add that MTK. Click nothing else! Why? See the note at the end of this document "CD-R Mode."

Now press the PLAY button and set you Master Levels to 0db or slightly under. (you can also edit your MTK here as well.) Press STOP and cue up your tracks where you want the recording to begin. I usually press the LOCATOR button till its lit YELLOW then the #1 button to mark/locate this beginning point later. Press RECORD & PLAY and MIX your song live. Fade out at the end and press STOP.

Now press the ZERO/Back button, bring up the Master RED Fader to Unity/0db, click on the mastering room's STATUS button to GREEN/PLAY and press the PLAY button to hear what you recorded. The tracks should be GRAYED out and music playing. If you do not like this recording of your master tracks you can select a different set of V-Tracks to record to or press UNDO> ENTER> to erase it. *Note: Once again, master your songs in each project, one song per project and then burn the mastered pairs to disc one at a time from each songs project. Once you have several projects/songs completed and mastered burn them to disc.

BURN TO CD

To burn these to CD, be at this stage in the Mastering Room, Mastering Room ON and STATUS Play. Click CD-RW Mastering> select CD-WRITE, store current? Click "YES" and the INSERT a blank CD-RW or CD-R. The CD-R WRITE window will open. Make sure your V-Tracks 23/24-16 are shown in the L-Ch & R-Ch windows, (Just because you have them set right in the Mastering Room does not mean they will be the same here.)

Select "FINALIZE" to "OFF", "WRITE METHOD" to (TAO)Track at Once, "SPEED" to MAX and click "OK" to burn. NOTE! If you do not have other Master Tracks in other projects to add to this CD then click "FINALIZE" to "ON". If you do have more leave it "OFF" until the last song's Master Tracks are ready to burn. This will close the CD so

you can play it in a CD Player. If you forget to turn “FINALIZE” “ON” on the last song’s Master Tracks to the CD, then stick it back in and select “FINALIZE” to “OnlyFin.” for finalizing ONLY. Now it’s ready for playing and copying with PCs. Click “OK” then “YES”, “ENTER” and “YES” to burn 16bit, 44.1k in .cda format.
*You can master and burn only one song to disc using this method, just select “Finalize” to “ON” and it will place the track marker for the song and close/finalize the CD. To protect the CD, go to UTILITY> Project Parameter> and set “Digital Copy Protect” ON.

BACKUPS
To backup songs click on Project> Project List> check mark the projects to backup, click to page _ and select “F1 BACKUP”& insert a CD-RW. In that window select Verify to “ON” and SPEED to MAX and click “OK”. To RECOVER go to Project> Project List> and in that window scroll down to [SCSI—CR-RW--] click it and select LIST in the window that pops up, check mark projects to recover, on _ page and click on “F2 RECOVER” and in that window click “OK”. This will save all of the effects settings, undo history, track parameters, locators etc along with your audio to disk.

BOUNCING TRACKS W/ EFFECTS by: F. Griffith
Let’s say we have a vocal on TRACK 5 that we want to bounce to TRACK 10 and use EFFECT1 to add and effect to the vocal. Let’s also say, we want to use P001:[Reverb 2] on that vocal. First off, click on EFFECT at the top of the screen and select EFFECT1. When the EFFECT1 window opens click “F1 PATCH”, now using the scroll arrows to the right of the patch list scroll down to P002 and click on it to highlight it, now click “F5 SELECT” to select it, it will be listed under “Current” and click “F6 EXIT” twice to back out of the windows. *See VS manual for list of which are Insert vs. Looped effects.

Now let’s click on EZ Routing> then Routing View> and in the lower left hand quad find TRACK MIXER underlined green, tracks 1 thru 24. L-Click and hold the track number 5 and drag the blue line up to RECORDING TRACK number 10 and let go. You have now selected TRACK 5 to bounce to TRACK 10 without a Reverb EFFECT!

Now let’s complete the LOOP of the Reverb on EFFECT 1 to the vocal by finding the FX RTN underlined in green, and click on the EFFECT/FX RTN number 1 and dragging its blue line over to the RECORDING TRACK number 10. Now you should see a black or blue “Virtual cable” from TRACK MIXER number 5 to RECORDING TRACK number 10 and a blue one from FX RTN 1 to RECORDING TRACK number 10. This will add the effect. Since we have all AUX & FX RTN Faders set to 0db, we don’t have to do that step. Click HOME.

RECORD THE BOUNCE
Press the TRACK STATUS button on TRACK 10 till its flashing red, cue up the vocal track to the verse to bounce with the reverb effect, and press RECORD and Play when ready. After the vocal part records press STOP and cue the Recorded vocal track up and press the TRACK STATUS button of TRACK#10 till it’s green for PLAY and press

PLAY to hear it. You can MUTE the other tracks to be sure and compare TRACK 5 with TRACK 10 to be sure.

You can pretty much bounce any track to any track with effects added that you want. If you want to bounce TRACKs 5, 7 & 9 to TRACK 10 then in EZ ROUTING grab the TRACK MIXER number 7 and drag it up to the RECORDING TRACK number 10 and repeat for TACK MIXER number 9. It's that easy. To bounce with an INSERT EFFECT, you would just go to TRACK#5's CH-EDIT page and click on the FX1 thru 8 button that matches the EFFECT processor number you have the insert effect patched into. No EZ-Routing for INSERT EFFECTS. *See "VS SUB MIXES.doc" for more. Also, to clear all the track routings to hard disk recorder tracks in the EZ Routing View click F4(ClrTra) at the bottom of the window.

BOUNCE WITOUT EFFECT
Do all the above but forget about patching an effect and grabbing the FX RTN cable. In other words, don't add the effect. You can do SUB MIXES (See VS SUB MIXES) as well where you add more than one track to the destination track. Say you want to bounce all 6 drum tracks to a PAIR, or all background vocal tracks to a pair of tracks that's how you would do it. Bouncing to a pair of tracks requires you to go to the CH-Edit page of the ODD numbered tracks and linking it with it's even numbered track by clicking on the CH LINK button down below the ATT knob on the left hand side of the screen.

EDIT EFFECTS
Click on EFFECT> EFFECT1, or which ever you want to edit. Let's say P001:[Reverb2] is patched in. In EFFECT1's window you will see Reverb 2 and 2 Boxes, one is REV/on, the other EQ/on. To turn them on or off just click the tiny half round squares on & off. To edit "Rev", click "Rev" twice and there are the 8 or so parameters you can adjust. Under "Type" you have 5 to choose from, Hall 1&2, Room 1&2 & Plate for example. Click EXIT and now you can do the same with EQ or click EXIT again to close the screen. Note. Again the section on "ADDING EFFECTS TO INPUTS" works for adding Dynamics/Compression & EQ too, it's all on the CH-Edit page.

EZ ROUTING TOOLS
To INITIALIZE, or reset all input-to-input channel routings click on "F1(IniPB)" at the bottom of the screen. To CLEAR all input-to-input channel routings click on "F2(ClrPB).

To INITIALIZE all routings to the hard disk recorder tracks click on "F3(IniTra) and to CLEAR all routings to the hard disk recorder tracks click on "F4(ClrTra).

Note: "CD-R Mode"
I master using the non-CD-R Mode in the mastering room. Why? Because the master tracks stay in 24bit and can be played back within the project they are mastered in. I also like to send my mastered pair of tracks thru my R-Bus outs to an RPC-1 card inside a PC for mastering them there with Wave Lab and/or T-Racks, PC version.

If you use CD-R Mode in an MTP 44.1k project then you have to import the mastered pairs into a new Empty CDR project for mastering just to listen to them. Then line up all of the mastered pairs from all of the projects, one after another on their tracks, add CD-R markers and burn DAO(Disc At Once) to CD-R. I use TAO(Track At Once) and keep them at 24bit within the project so I can hear them, review them etc. Then I burn them TAO to CD-R from each project one mastered pair at a time. If you want to use the CD-R Mode that's fine, I have a "VS MST DAO" doc that explains the process step by step. You can also use it to do the same with non-CD-R Mode mastered pairs, import them to an empty MTP project and import the tracks into it using the steps given in the "VS MST DAO" doc. That's up to you. Also Mastering TAO had caused problems with Duplicators in the past, but recently the newer duplicating gear claims it can work with both TAO & DAO.

Important to remember: These documents are written to be used with your VS on and connected to a PS/2 mouse, PS/2 keyboard and VGA [external] PC Monitor. When using any of the VS info docs keep in mind, most of the things you do within a project can be un-done. You can practice anything you want with recording, bouncing, editing, adding effects, routings etc. anything with mixer settings and if you don't want to keep the practice settings, just shutdown the VS and answer "NO" to saving the current project and it will revert back to the original state it was in when you first opened it. Also, most actions you take can be un-done by pressing UNDO> a small window opens with a list of actions, your last action will be at the top already highlighted so press the ENTER> button and it performs an UNDO on that action. So practice, practice & practice some more without worry!

NEVER…
OPTIMIZE> UNDO> and SAVE in a row. Your track data will disappear! If you do Optimize and UNDO go to Project> List> and reload the project! Also, **Never**, shutdown the VS power without going thru the proper shutdown procedure, you could cause the VS to lock up on next power up! Shutdown= Project> Shutdown/Eject> YES & YES.

ALWAYS…
Have a UPS (Battery Backup device) between the VS and wall socket to run you VS and condition the power. If the power ever goes off when your VS is up and running, you can loose your data or worse, cause the VS to lock up on power up!

CONCLUSION
VS8F-2 cards fill up 2 Effects under EFFECT. Effect1 thru 8 equals four of the VS8F-2 Cards 1 thru 4, or Slots "A" thru "D" inside the unit under a back panel. EFFECT1 thru 8 equals AUX1 thru 8 and FX RTN1 thru 8. Some EFFECTS use up the whole card but most are mono. You can select them as left & right and split up the effects into a total of 16 effects.

If you go thru these instructions several times you should get the hang of using the VS2480 and actually get some good recording done. For more on recording go to

www.studiobuddy.com and download their Studio Buddy program full of free info on how to record and with what etc. Seriously, it's good info, it's just that they have a stupid puppy dog logo, ignore the dog. Don't let it influence your opinion of the information given. Also, if you have questions about this info email me at Fcgjabq@aol.com and if you need even more help with the VS2480 call Roland's Tech Support at 1-323-890-3741 on week days and all the time, go to VS-Planet.com. Now get some good music recorded and on CDs. Good Luck, Frank.

To use Acid,
Click on the (if you have my “ProgsPlugs” CD if not skip to Acid Pro) “ProgsPlugs”folder> acid pro> then Acid Pro file with ".exe" as an ending file name is the execute file for installing the program. Click on it and follow the recommended instructions to install Acid. Acid is a pretty simple program to use. When you install it, sooner or later it will ask you for a key. Acid Pro 4.0 keygenerator.exe is what you click on then and copy and paste the number in the SERIAL window into Acid's window. If that doesn't work, try it again by clicking on GENERATE to generate a new key to use. You can make up a number for the computer ID window too, if need be.

ACID PRO
Now insert a Loop CD. Once Acid is installed you click on the Desktop Icon to open it. Don't fill out the name form and comments, just click OK. Once it is open, find the EXPLORER window, bottom left. Next to it, right bottom, is the File Audition window. In then EXPLORER window click on My Computer> then the D: Drive the Loop CD is in and then click on one of the loop folders. Audio Wave files should appear in the Audition window. This window has a play and stop button you can use. Click on a file and use the play and stop buttons to listen to different loops. Once you find a loop you want to use Double Click on it and it will appear as a track in Acid's Track window above the Audition window. Find several loops to use for a test run and double click on them too.

USING LOOPS
Now with the mouse cursor, it will be a pencil instead of an arrow, left click and hold, on track one on, a grid line and draw, left to right, a LOOP out. Small indentions will appear on the top and bottom of the loop as it repeats. you can make them as long as you want. Any loop can be 1/4, 1/2 3/4 or full loops. It's up to you to decide how much of each loop to use and how many times to use it. Draw out a couple of repeats on track 1. Then on track 2, draw another one out where the last one ended and so on with the next track's loop and the next track's loop. Now at the bottom of this track window on the left are the play, stop, back, etc buttons. Play your drum loops you drew out to get an idea of how this works and sounds. Click stop.

Now let's check out the grid spacing and snap to options. Click on OPTIONS> at the top of the program window, then Snapping> and make sure it's Enabled. Indented is ENABLE. This snaps the loops to lines on the grid.
Now OPTIONS> GRID SPACING> and select "16th or 32nd Note" for now.

Now let's find the zoom buttons for the tracks window. On the Horizontal and Vertical scroll bars there are little + and - signs. On the Horizontal one click the + plus sign about 5 times quickly each click. This spreads out the loops so you can see if they are lined up on the grid lines evenly so the beat is steady from loop to loop and track to track. If any are off, left click and hold in the middle of a loop

and drag the loop left or right until they SNAP to a line. Once all are on the lines, one after another they should play seamlessly.

SAVING A PROJECT

Once you have all the loops from this CD in the project, you have to save them before using another loop CD. Click on FILE> SAVE AS...> In the SAVE window it should show a folder and 4.0, in FILE NAME enter a name, like "Practice Project", in SAVE AS TYPE click the down arrow and select "ACID Project With Embedded Media (*.acd-zip)" and click the SAVE button. Now, when you click on the Acid desktop window, this most current project will open. Close Acid and put another LOOP CD in then Open Acid again and you can add more LOOPs to this Project. If you don't save them as "Embedded" then every time you want to play the loops in this project you'll have to have the loop CD in the drive.

BPM SLIDER

Notice in Acid you have a BPM slider under the TRACK NAMES area midway down the left side. Also, a tuning fork displaying 4/4 time and the BPM of the song. The slider handle is what you use to drag it left to slow the song down or drag it right to speed it up. If you will notice, as you left click and hold the mouse on that handle, up next to the track names there is a divide/center point where color lines are on the right or left of this point. This shows how much a loop has been slowed down or sped up to match the BPM the slider has selected. Loops sped up too fast or slowed down too much can start to sound a bit funny and fast ones sound, impossible for a real drummer to play. Be careful with too big of a difference in the BPM of the loops you use. They may sound strange.

Volume & Pan

Each track/loop has its own VOLUME (Vol.) slider knob and normally it is set to -6db. The more tracks/loops you add the more the total, over all volume is raised, so -6db is a good starting point. To PAN tracks/loops left or right, next to the Vol. is a drop down arrow, click on it and select PAN, now all Volume knobs are PAN sliders.

ENVELOPES/Automation

Another feature I like to use is the ENVELOPE feature. Click on a TRACK'S number to highlight/select that track then click INSERT> at top of window, Select ENVELOPE> and there are VOLUME and PAN selections. When you select PAN an ORANGE line will appear across the track and it's loops, select VOLUME and a BLUE line will appear. To use these have the tracks zoomed out some and on the line just double click and that places a square on the line. Add several of these on the line and then you can left click and drag them to where you want them. For PAN Up is LEFT and DOWN is RIGHT. The line will follow these squares as you drag them. Rest on them and a window opens to show in percentages how far left and right the PAN line is. With the Volume, UP is UP and DOWN is DOWN and it displays this in dbs. These come in handy for

panning cymbals and toms in a fill and for raising and lowering the volumes to add emphasis to the drums.

SAVING CHANGES
While you work on drum tracks, once you have saved it as embedded media, as you make changes to the tracks you can click the SAVE button to save it just incase something happens, your PC freezes, a power outage or whatever.

SAVE AS .WAV & BURN TO CD
Now let's say you are done with a songs drum tracks and you want to save them to disc and load them into the VS. After a song has been saved, I usually click the save button again to be sure, Click on FILE> RENDER AS..> in the SAVE IN: window, select a folder you can find on your hard drive, I created a "AAudio Wav" folder on my C: Drive, so have a folder selected you can get too. In FILE NAME: "Practice Project" as an example, in SAVE AS TYPE: select "Wave [Microsoft][*.wav]" and click the SAVE button.

XP BURN WIZARD
Now close Acid and INSERT a blank CD-RW into you PC burner drive, open it as a folder in it's own window and after it's open click on START> MY COMPUTER> Local Disk:C> and find your audio folder and open it up in it's own window. Find you audio file and Right Click on it and select COPY, now in the blank CD-RW window R-Click and select PASTE. If you have XP Home or XP Pro a Wizard should open, Name the disk to burn the wav file too, and select "Make Copies for Some computers and Players" or some thing like that, not the regular "Audio CD for CD Players" and follow thru the wizard and it'll burn a DATA copy of this WAV FILE to the CD-RW.

IMPORT .WAV INTO VS
Now in the VS2480 and INSERT the CD-RW with the wav file on it, click on CD-RW Mastering> select WAV IMPORT> the VS scans the drive and a window opens, click on the CD-RW's folder and a smaller window opens, in that window select the WAVE FILE "Practice Project" and select the TRACKs or V-Tracks to send it too, Click OK and it'll say Done when finished. Click EXIT and eject your disk. These instructions are rather general but you'll be able to figure it out. That's how it's done.

In Acid on some loop CDs you'll find single shots of kicks snares cymbals etc and intros and endings that you can use to create the opening intro to the songs drum tracks and their ending crashes. Single Shots are just that, a single hit of a snare, kick or crash or ting of a cymbal that can be place one at a time, a track at a time, anywhere on the time line of the drum tracks in Acid. Now play around with it once you get it and if you have more questions email me at Fcgjabq@aol.com for more help.

Acid and Bussing 8 tracks of Audio to VS for use with 8 track loops thru an RPC-1 card.
In Acid, Under Options> Preferences> Audio tab and under “Audio Devices Type” select “Roland RPC-1 ASIO” from the drop down menu, click APPLY & OK. Go to INSERT and on the drop down menu select Bus. This will insert “A” bus _ with a Left & Right channel onto the bottom right hand side of Acid’s window next to the Master Bus. Go back to INSERT and select Bus 3 more times for Busses “B”, “C” & “D” for a total of 4 Busses. “B” will be 3/4 L&R, “C” 5/6 L&R and “D” 7/8 L&R.

Now click on the Double square bus icon on A Bus and select “R-Bus Out _ Roland RPC-1” now Bus B and select “R-Bus Out 3/4…” and Bus C and select “R-Bus Out 5/6 RPC-1” and Bus D and select “R-Bus Out 7/8..RPC-1” now you have 8 channels out to RPC-1 Card. Now click on the Bus Icon on each track and select Roland _ for tracks 1 & 2, the tracks 3 & 4 select Roland 3/4 and so on for a total of 8 tracks. Now PAN track 1 left, track 2 right, track 3 left, track 4 right, track 5 left, track 6 right, track 7 left and track 8 right. This will send Acids tracks 1 thru 8 to the VS thru RPC-1 card via R-Bus to INPUTS 17 thru 24 in the VS. You have to bring up the VS 17 – 24 input faders to hear them. If you are not using 8 tracks loops then pan all bus pairs left & right. Some loops have 5 parts/tracks and some have 6 parts/tracks, depending on which Discrete Drums series loops you have or Drums On Demand (DOD). This means that with the 5 and 6 track loops you only need to insert 3 Busses in Acid to send the tracks to your VS.

Envelope in Acid
More on using the ENVELOPE feature. Click on a TRACK'S number to highlight/select that track then click INSERT> at top of window, Select ENVELOPE> and there are VOLUME and PAN selections. When you select PAN an ORANGE line will appear across the track and it's loops, select VOLUME and a BLUE line will appear. To use these have the tracks zoomed out some and on the line just double click and that places a square on the line. Add several of these on the line and then you can left click and drag them to where you want them. For PAN Up is LEFT and DOWN is RIGHT. The line will follow these squares as you drag them. Rest on them and a window opens to show in percentages how far left and right the PAN line is. With the Volume, UP is UP and DOWN is DOWN and it displays this in dbs. These come in handy for panning cymbals and toms in a fill and for raising and lowering the volumes to add emphasis to the drums.

[*acd.] PROJECTS
You can also save Acid projects as "Acid Project File[*.acd]" but it does not save the audio data with it, only the location this data can be found in. If another application like Cakewalk Home Studio has this data in a folder then Acid can find it and use this Acid project as a TEMPLATE on how to use this file. If you

saved loops from a disc this way then the next time you tried to play this Acid Project it would ask you for the disk that the loops came off of. That's why I save LOOPS as "Acid Project with Embedded Media [*.acd-zip]"so the data stays with the Acid Project and i don't have to search for the disk the loops were on. I often use loops from many loop disk.

ACID PLUG-IN EFFECTS

You can also add effects to tracks in Acid. Each track has a funny looking green FX Icon with a tiny drop down arrow on it's right side. Left click on this FX Icon and an "Audio Plug-In" window opens the Equalizer, EQ. It has 3 more of the green FX Icons in the upper right hand corner of this small window, the one on the left is the "EDIT CHAIN", rest the mouse pointer on it and you'll see it identify itself.

Left click on this one and a larger "Plug-In Chooser" window opens with a list of effects in it. Here, you simply click on an effect name to select it, then click the "ADD" button and then click "OK." Now it has added the REVERB to the "Track EQ" with check marks beside them in a chain. The REVERB is now indented and ready for use.

Play your Acid track and now you can select a "Reverberation Mode" from the modes drop down menu and see what it sounds like on your track. When you find one you like simply click the "X" to close the window or click on the "Track EQ" and make adjustments there and then close the window. The EQ is not on and working until you make adjustments to it. To delete either one of these plug-in effects from the chain, have it's window open and left click on the second green FX Icon from the left, at the top right of it's window.

Any time you want to come back to a track's FX chain just left click on the FX Icon on the track. This is fairly basic instructions for how to use Acid's effects but it will get you started. For more, see the Acid manual on in the Acid folder on the "ProgsPlugs" All In One disc or click on HELP in Acid and select "Contents and Index" from the menu.

To Use Wave Lab

Once Wave Lab is installed you can go to File> Open> Wave > and pull in a .wav file from a CD or folder on your PC to work with.
Play/Stop/back etc transports are at the top right of the screen, if not click on View> Tool Bars> Transport> and it will open.

ADD EFFECTS/Plug-ins

Under Effects at the right of the screen, click on #1 and the list has DirectX & VST there, select one from the pop up menu, or none to clear one. The plug-in opens, select some PRESETS till you find a sound you like. The plug-in window will open on top of the .wav file. You can move it around by grabbing it’s top blue

bar or minimize, fold etc. There will be parameters you can adjust and PRESETS where you see “PRESET” or “LOAD” if it has any. You can make your own by adjusting the parameters and then clicking EDIT, type in a name for it, click ADD and then OK or SAVE. You can add up to 8 plug-in effects that’s why there are 8 effect’s blocks. To get rid of an effect click to open the list and select NONE.

RENDERING A .WAV FILE

Bottom right of the screen is a "Render" button, to add an effect or up to 8 effects plug-ins processed to a file, click on "Render".....

Then on the File tab tick "Create new file" and place a Check Mark in the box next to "Create Specific File".....Now click on the small yellow folder to the right of the little window and explore to an audio file you can find on your PC and select it and click OK.

Now you can go to your audio folder like "My Music", if you selected it and saved the file there before, and send that file to a CD-RW to burn so you can use WAV IMPORT in the VS to place it on a track. See the XP BURN WIZARD in Acid above.

Use Track Export in the VS to burn a .wav file of a track to a CD-RW to load into, Wave Lab, Acid or Sonar.

Roxio 7

Basically just click on the desktop icon with the disc in your PC that you want to copy music or data to and it’ll take a minute to load then it’ll ask you to agree to something, click OK and the main Roxio window opens. For DVDs and CDs, data, audio or video, that you want to copy click on “Disc Copier” and a window open and you can select Copy if it doesn’t.. In the “Roxio Disc Copier” window you have a “Source Drive” section and a “Destination Drive Section” with drop down menus that allow you to select the source and destination drives and disc. Usually it’ll show you where the blank disc is under the Drives selected. You can select write speed and number of copies and then click COPY. It’ll copy a CD in a couple of minutes and a DVD in several minutes depending on how much data or video is on it. Full DVD of data, appx 20 mins. using one drive, half that with 2 drives. I like to make copies from one drive because Roxio stores the data on your hard drive and checks it for errors before burning it to disc. When burning is done click the CLOSE button to eject disc. It’ll show you how many minutes the burn took.

To copy audio, video or data off of your hard drive select “Creator Classic”, you’ll see the loading wait window then “Creator Classic” window opens. You’ll have a “Select Source” window at the top and “Data Disc Project” window at the bottom. I click on the numbers next to the disc icon below “Disc Name” and enter a title for the disc, then at the top on the left side I use the explorer window to find my data clicking on the [+] sign by Local Disk (C:) and when I find the folder or

folders I'm looking for I click and drag the folder down to the Data Disc Project window's right hand side and drop the folder under Name, Size etc…… Then I click the on the "BURN" icon and another window opens with Destination drive only and a Details page on the right of the burn window. If it's not there, click on "Details". Here you select how you want to burn and it'll show you how much data you are burning and number of disc needed. When ready, click Burn. When the burn process is done, click the CLOSE button, that use to be CANCEL, and the disc will eject. Roxio ask if you want to save the project, I say NO. and close Roxio.

T-Racks24 Brief how to..

T-Racks is pretty easy to install and use. There's and Open button to open an explorer window to bring in a .wav file. Then regular transport buttons to Play, Stop, Back etc.. To get to the presets click on the word Default in a little window, you can check out different presets while the file is playing. You also make adjustment to the different sections of the rack. When it sounds the way you like you click on the Process button and process and save the file.

VS & RPC-1 Card Setup By Frank Griffith

Hardware/tab on the RPC-1 card Master Clock = External
Multi/Track Driver Devices = Single and in sync
DMA Buffer size = 384
Tick Disable Control of... and the
Reset when Idle... both boxes should be ticked.
Adjust nothing else in the other tabs. Save these settings.
Sample Rate should equal the VS projects sample rate, 24bit/44.1K
Whatever sample rate & bit rate you need.
*The dip switch's on the card, the switch closest to the R-Bus connection(the one on the left) should be UP and the one furthest away from the R-Bus connection (On the right) should be DOWN. To SLAVE the RPC-1 card to the VS flip them the opposite way.

VS UTILITY> Project Parameter page F3,
Set master Clock to INT.
Dither and Digital Copy Protect to OFF.
Leave R-Bus Coaxial Sel & R-Bus Optical alone.

UTILITY> SYNC Parameter>
Make sure Sync Mode is set to INT.
If you want to sync to MIDI Time code from the VS choose MTC in the R-BUS1 SYNC GEN.
Set your software to MTC as well. And from where(Midi RPC-1). PC & VS will sync.

Now EZ-Routing>Set up RPC-1 Inputs & Outputs on the VS2480, R-Bus1 Inputs are attached to IN 17-24.
Under OUTPUT in EZ-Routing. R-Bus1 Outputs are paired in stereo Aux outputs 1-8. (You can connect the first 2 to MST if you want to send the stereo master bus to PC.)

Press IN 17-24 and press the CH-Edit button of IN 17 and select the CH-Link to link IN17 & 18 so they will pan automatically and set their faders to 0db
That's about it.

For setting up windows PC audio to be heard in the VS go to Start> Control Panel> Sounds & Audio Devices> select the Audio tab and use the drop down menus to select the RPC-1 card for playback.

SONAR 4

In Sonar Options> Audio...> General> I have my RPC-1 selected as Playback & Record Timing Master, bit depth 16 or you can use 24 with VS?
My buffer @ 4 and the slider set to “Fast.”

Advanced Tab> I/O Buffer at 64, Driver Mode=WDM/KS. Dithering= Pow-r3 & Full Chased Clock ticked.

Drivers Tab>
All Input and Output Drivers are highlighted.

Driver Profiles Tab> Roland RPC-1(10in, 8 out)
Stream 16bit Data As= 32Bit PCM left-justified.

*Some say you need the Sonar to be Master and the VS to be Slave to sync them both or the audio will glitch when recording.

> Getting 16bit .wav Files Out of the 2480 While in MTP (24bit) Mode <

Let's say that you want to get 16bit .WAV (wave) files out of the VS2480 in MTP (24 bit) mode but you don't have PC conversion software. And, you don't want to go to the trouble of burning the 24bit files to CD-R and then importing back into M16 mode, and then have to burn them all over again at 16bit.

It can be done using **Mastering Room**. As Mastering Room offers CD-R mode allowing **conversion from 24bit to16bit**. [*See below]

Go to Mastering Room. In the V.Track section, the VS2480 default tracks are 23/24-16, being Tracks 23 and 24 (stereo) Virtual Track 16. However, you can choose the other V.Tracks by left clicking in the V.Track section. 23/24 V.Tracks 1, 2, 3, 4, 5 up to16.

You can record two or more tracks as 16bit files using the **SOLO buttons** on any of your tracks.

Simply SOLO two or more tracks that you want to convert to 16bit, two or more at a time. Then in Mastering Room select the V.Track 23/24 1-16 that you want the 16bit file to be recorded to i.e. if you plan to convert all 24 tracks to 16bit SOLO'ed two at a time you will need to record 12 times to 12 V.Tracks (23/24 – V.Tracks 1 through 12) as Stereo. [*See below]

Set a LOCATOR point so that you can return to that exact point prior to each new recording.

SOLO two or more of your recorded tracks (Blue SOLO buttons).

Now just follow the Mastering Room procedure. Hit the LOCATE point, very important, select V.Track 23/24 1-16, then Mastering Room [ON], CD-R Mode [ON] Status [Rec]. Hit the transport REC (now blinking) and press play. Your SOLO'ed tracks are now recording, press stop when finished. Repeat this process again by SOLO'ing new tracks and choosing different V.Tracks in the Mastering Room.

Mastering Room in CD-R Mode converts 24bit to16Bit, so now you might have up to 16 Stereo V.Tracks on Tracks 23/24 (V.Track 1-16) and if CD-R Mode was on each time, all your recorded files will be 16bit.

Now just TRACK EXPORT the Tracks to CD-R under CD-RW Mastering. Under CD-RW Mastering go to TRACK EXPORT then press MAP [F2] under the 23/24 all your recorded CD-R Mode .WAV files will be there and they will all be 16bit. Select them and burn to CD-R! That's it.

*All 16bit .WAV files EXPORTED like this are Stereo not Mono, I know of no way around this.

- Set a LOCATE Point prior to recording, return to it each time.
- SOLO two or more tracks to be recorded as 16bit.
- Use Mastering Room Procedure, CD-R MODE must be ON for 16bit.
- Two tracks to 23/24 V.Tracks 1-16 Newly SOLO'ed tracks to NEW V-Tracks (don't record over the previous ones).
- EXPORT TRACKS under 23/24 to CD-R they are all 16bit.

From Brett's Site… http://www.rolandvs2480.net/

VS BitsSamplesWavs
PROJECT>>NEW>>
When you CREATE a NEW project, you select bit rate, sample rate and project mode there. If you are in an MTP mode project which is the default, normally it'll have 24bit and 44.1k sample rate check marked for the projects sample and bit rate. IF SO... Then when you use TRACK EXPORT or PHRASE EXPORT thru the TRACK EXPORT window(or PHRASE), the files will be 24bit, 44.1k, .wav format files.
.....
CD-RW Mastering>>Mastering Room>>
MASTERING.
If you use the mastering room and DO NOT use CD-R Mode in the mastering room, then your master tracks will stay 24bit 44.1k and EXPORT as 24bit, 44.1k .wav files.

If you use CD-R mode in the mastering room then your masters will be 16bit, 44.1k and TRACK EXPORT as 16bit 44.1k .wav files to CD-R... hence the CD-R mode.
.....

CD-R MODE at 16bit and 44.1k is the standard that the market uses to BURN .cda format Music CDs. You buy a CD at the store, Pink Floyd, it most likely will be .cda audio format in 16bit, 44.1k.
.....
CD-RW Mastering>> CD-R WRITE>>
BURNING Mastered Tracks to CD-R in VS.
When you use the CD-R WRITE window to BURN your mastered songs in TAO(Track At Once) or DAO(Disc At Once) to CD-R making your own music audio CDs, the VS BURNS them (not considered exporting) in the standard 16bit, 44.1k .cda audio format.
.....
PROJECT MODE.
If you select CD-R Mode in the PROJECT>>NEW>> window and have CD-R Mode be your project mode then when you EXPORT tracks or phrases they will be in 16bit, 44.1k sample rate, .wav format files. Your Master Tracks BURN to CD as 16bit, 44.1k, in .cda format.
What ever the project mode, bit rate and sample rate, the tracks will export in the same bit rate and sample rate and always be .wav format files.
.....
CD-RW Mastering>>WAV IMPORT>>
When you import .wav files into the VS, the VS will CONVERT them to match the project's mode, bit rate and sample rate. It uses the WAV IMPORT window. Pg269
You can IMPORT .wav format files that are 16bit and 24bit.
.....
CD-RW Mastering>> CD CAPRURE>>
When you want to IMPORT .16bit, 44.1k, .cda format audio tracks off a market CD, you have to use the CD CAPTURE window. Thw VS will CONVERT them to match the Project Mode, bit rate and sample rate.
.....

*The VS can run projects in different sample rates and bit rates. The second most popular project mode is M24, 24bit, 48k sample rate.
*Any time you use the CD-R WRITE window in the VS, the tracks will be BURNED in 16bit, 44.1k sample rate, .cda format audio files.

VS BkUPFmtRcvy
*If you have an OS above 2.009 then it is not necessary to Format/Initialize the hard drive in your VS after updating to a higher version!

BACKUPS (Formatting & Recovering Projects) By Frank Griffith
It's best to click on PROJECT> Project List> and add up the mega bites of each Project on the list. To the right of each project title are the mega bites (MB) size of the project and a date below that. Group them into numbers that add up to less than 700MB, closer to 600MBs to be safe. So you can fit them on the 700MB CD-R or RWs. Usually 4 or 5 songs per CD-RW or CD-R are enough. Once you have done this you know which ones to check mark for each backup to the CDs. Insert a blank CD-R or RW. It's important to note here that VS backups will only be able to be recovered on a VS machine. Most older model VS machines, 880, 1680 etc. backups can be recovered in VS2480s. My point is, VS backups are not an audio format or data file that can be used in a PC. DVD models use only DVD-R disc.

Check Mark the first group of PROJECTS to BACKUP to CD. There are little empty boxes to the left of each project, click in them with your left mouse button to place a check mark. Do this for each one you want to backup to the CD. Then select PAGE _, bottom left of window, and click on "F1 BACKUP". Click on it. Answer YES to the prompts and another window opens. In this window, select MAX Speed, check mark VERIFY and click "OK" to burn the Backup disk.

5 songs will take about 20 minutes then it EJECTS the disk. Then you can repeat the process for each group of songs to backup to each disk. It's always a good idea to perform a test RECOVER of a project to be sure the data is there. You do have to recover at least one project to do this, you can't cancel a RECOVER but you can select another drive using the "F" buttons in the Recover window.

Also, each time a project is recovered it is date/time stamped just like saving a project. This means that the projects you do test recover will have a current date/time stamp in the project list so you can tell them a part from the original song on the list. Just as long as you see the VS recover a project/song from the backup disk without giving you the "Operation Failed" message, you project/song recovered and the backup disk is good. See "Recovering Projects" below for step by step info on how to do this. Note: If you have an UPDATE, do it at this time.

FORMATTING THE HARD DRIVE
Usually when backups are done you can FORMAT the hard drive. Go to PROJECT> PROJECT LIST> click on the scroll bar's arrows to get to the IDE:0 Drive to place the rectangular box around it and at the bottom of the window select PAGE 4/4 and click on "F2 FmtDrv" to open the Format window.

In this window select 10GB for Partition size then select PHYSICAL FORMAT ON, Quick Scan or SURFACE SCAN ON. Next click OK to begin the formatting process. This will take about 6 _ hours for an 80GB Hard Drive and 13 hours for an 120BG Hard drive. Most do this at night so it'll be done during down time. You can tell it's finished when it loads a "IntProject 001" when it is done. You can RENAME this one and use it or ERASE it. All of your old projects will be erased and this will be the only project showing in Project> Project List> until you recover them from the backup disk.

RENAME PROJECT. To RENAME it just click on PROJECT> NAME> and type in a new name in the NEW PROJECT's window.

ERASE a PROJECT just select PROJECT> PROJECT LIST> and CHECK MARK the PROJECT to ERASE. Then select PAGE 2/4 and click on"F2 ERASE" and answer YES to the prompts. The project will be erased.

RECOVERING PROJECTS
Click on PROJECT> PROJECT LIST>in this window click on the scroll bar's down arrow (right side of list) to move the rectangular box around "SCSI: CD-RW [---.-MB/---.-MB]" this will select the built in CD-RW drive, now INSERT the BACKUP disk of PROJECTS and click "F5 LIST" at the bottom of this window. Answer YES to the prompts. A new window opens listing the PROJECTS on the disk. Check Mark the ones to RECOVER from the list by click on the empty box to the right of the song's titles, when all of the projects you want to RECOVER have been check marked, click PAGE until you see "PAGE _" and then click "F2 RECOVER." A Recover window opens and click "F5 OK" to begin

recovery. This takes about _ the time it did to back them up. Once you LIST the projects on a disk, recover at least one to test recovering projects. You can back out of this operation without recovering a project by scrolling the rectangular box up to and around another drive, I select IDE:0 where my projects are and click "F6 LIST", it'll ask you if you're sure you want to change to that drive, click YES and it'll scan the IDE:0 drive for a bit and then LIST your projects. Then you can check mark a project and click on "F1 Select" and it'll scan and load that project. Once the project is loaded you can PRESS the Eject button and eject your backup disk. OR If you want you can recover a song and then go to project list and ERASE it as explained above RECOVERING PROJECTS.
*These instructions are a bit brief but they are easy enough to figure out. Just think logically about what you need to do with the VS and usually you can get the job done.

FORMATTING EXTERNAL SCSI DRIVE
Go to Project> Project List> select Page 4/4> Find "F2 FmtDrv" and select
Partition Size: 10GB,
Physical Format: On,
Surface scan: On and OK.
It'll take about 6 _ hours for 80GB and double that for 120GB.

FORMAT A NEW HARD DRIVE
Once it's installed, turn the VS on and watch the small 3" x 4" LCD on the VS and answer the prompts using the ENTER/EXIT buttons, "F" buttons under the screen and the jog wheel. You can do a "Quick" format with a new hard drive but it's recommended to do the following:

First you'll see "Formatted Drive Not Found, Force Initialize?
Press ENTER for YES then you have to Select Drive, IDE 0 and then Partition size 10GB, Check "Physical Format" and surface scan "ON". I think you use the jog wheel to highlight items and the ENTER to select and the "F" buttons to page through the menus. It becomes logical as you do it and finally you select "OK" and it'll ask you twice if you want to do this, answer "YES." These instructions are brief but I added them from memory. It'll take about 6 _ hours for 80GB and double that for 120GB.

Brands: Seagate, Western Digital, Maxtor & IBM

Specs: 40, 80 0r 120GB, 7200RPM, 8MB Cache/Buffer, ATA/100 or 133 interface (NO SATA). I had to remove the master/slave jumper off of the hard drive before the VS would format mine and work. Important: Find a hard drive with seek times less than 10ms!

Formatting Hard drive in HD Model VS

The hard drive comes in a caddy that the hard drive is mounted into with 4 screws. After updating, if needed and backups, power down the VS

1. Unplug the VS and touch a metal grounded piece of gear in the room to remove static electricity.
2. Remove the face plate by removing the 2 Phillips head screws, from front right side of the machine.
3. You can use a coin to unlock the caddy, straight up should be unlocked.
4. Slide the caddy out and carefully pop the top metal cover off and then remove the 4 screws on the sides of the hard drive with a #2 screw driver. *Note: The metal cover may be on tight and may require a flathead screw driver to help pry it off, do not bend the cover.
5. Lift the drive out and remove the power and data cables. They can be in pretty tight so you may have to pull on them hard.
6. Check your new hard drive and make sure the jumper is set to MASTER before installing. Just follow these sets backwards to complete.

When done plug in the VS2480HD and power up. Check the small LCD for prompts, “Force Initialize” answer YES with the enter button the select drive IDE0, Physical Format ON, Surface Scan ON and use the “F” buttons under the VSs LCD to select 10GB Partitions and Format the new hard drive.

*If you ever need to turn the hard drive off, say you are using the VS only as a control surface for a PC then click on Utility> System Parameter> Param 2> IDE Drive> Select OFF. If you have a hard drive that refuses to spin up and on, check this parameter and make sure it’s ON.

NOTE: If you have a VS2480CD model VS, you can install a laptop DVD burner in place of the CD burner in your VS. The VS defaults the CD write speed at CD4x and DVD1x but here’s the catch. DVD2x is as fast as CD18x so DVD1x is equal to CD8x when it comes to burning backups. Also, DVDs hold 4.7GB of data, that’s 4700MBs and CDs only hold 700MBs so 5 or 6 CD backups will fit on one DVD in far less than half the time it takes to backup to CD. I recommend you do this your self and save hundreds of dollars compared to buying the VS2480DVD model or an external DVD

burner. It takes about 30 minutes to change them out plus you will also know where the hard drive is and can change it on your own as well. Hard Drive specs: 7200RPM, 8MB Cache, ata/100 or 133 Interface. No SATAs! Download the "Converting the VS2480CD to VS2480DVD" PDF from this direct link and buy a Panasonic UJ-845-B Slot Loading DVD/CD Laptop Burner….
http://www.rolandvs2480.net/VS2480CD%20to%20vs2480DVD%20Conversion/Convert%20your%202480CD%20to%20a%202480DVD.htm

The UJ-85J REPLACES: UJ-811, UJ-811-B, UJ815, UJ-815, UJ-815-B; UJ825, UJ-825, UJ-825-B; UJ835, UJ-835, UJ-835-B, UJ845, UJ-845, UJ-845-B model DVD Burners that have worked and even the UJ-845-S or UJ-845S model has worked. I have not heard of the UJ-85J being tried out in a VS2480CD as of yet. Also, the Panasocic/Matshita UJ-845-B, UJ-850 and UJ-870 was used which shows up as UJ870QJ in the CD-R Write window! Arjan van gog on VSP, used a UJ-875 BXM Master DVD Burner and it worked.

Link above is from Brett's web site at this link…
http://www.rolandvs2480.net/
You'll be glad you installed a DVD Burner in your VS2480CD. If you need more help with it contact me at Fcgjabq@aol.com
Also, the new VS2480DVD comes with the Matshita/Panasonic DVD-RAM UJ-840-S model burner.

Tempo Mapping/Find BPM **By Frank Griffith**

1) Load the project...find the TAP button and SHIFT.

2) Play the song and tap the TAP button in time with the beat of the song. Tap out about four measures of beats. This will place yellow markers above the track window.

3) Stop the project from playing and zoom in on the waves and adjust the yellow marker to line up on the waves beats as close as you can, using the mouse's grabby hand, L-click and drag them into place.

4) Press SHIFT+TAP to bring up the Tempo Map window

5) In that window select "F1 TM Cnv" for the Tempo Map Converter window.

6) In this window select
----a) Under CONVERT TYPE left click and scroll to the option "Tap --> Tempo Map"
----b) Under BEAT select 4/4 for a time signature
----c) Under TAP BEAT select 4 for how many beats to calculate...
(I tried 16 on a song I knew was 100BMP and it gave me 25BPM so I tried it at 4 and it gave me 100BMP)
----d) Now click ENTER and answer YES to the prompt. It'll say "Done."

7) Now click EXIT in the Tempo Map window.

8) Press SHIFT+TAP to open the window again and see what the beats per minutes are if the window is not already there.

9) You can add the notes sign BPM numbers all up and divide by the number of numbers to get the average. That's about as close as you can get.

10) If you want to clear the yellow markers, hold the CLEAR button down and L-click on each marker.

Metronome

Click on the UTILITY menu then Click on METRONOME and a window opens up. There you will find all of the parameters for setting it up. To send the metronome to the MONITOR bus you check mark INT under METRONOME OUT at 0db by default. Under INT LEVEL you can set the level from –infinity to +6db. I use -10db.

METRONOME MODE lets you select whether you want it to be heard only when recording “Rec Only” or heard during both record and playback “Rec&Play”. You can check mark the one you want.

TONE TYPE let’s you play a pair of clicks CLICK1, play a clave like sound CLICK2, or a drum like kick sound using with MIDI CLICK2<Note> or to use the metronomes programmable beat box DRUM. When you select DRUM the “F1” below becomes active and displays “F1 PtnEdt” (Pattern Edit). This brings up the Beat Box and parameters. For more on this and using the metronome with MIDI see the VS manual starting page 369.

I would just check mark INT under METRONOME OUT, at what ever INT LEVEL sounds loud enough with your project playing, use -8db at first, check mark “Rec& Play”, check mark the CLICK2 Clave sound and “F6 EXIT” for easiest use. You can always come back and adjust the volume as needed.

Use these settings for setting different BPMs, METRONOME OUT check INT, -8db INT LEVEL and DRUM for TONE TYPE then click on “F1 PtnEdt” to get to the Current Tempo (92.1 to 120.0 default to 140.0BPM) and Beat parameters (1/1 to 4/4 as default to 16/16) and change them to match what ever beat and tempo you need. Again, for more on this see pg369 in the VS Manual.

Bobkat on VSP wrote:
I read an interesting way of recording a click track using the internal metronome and the tempo map feature on the 2480 that might be useful.
First make your metronome and tempo map settings.
Then click Utility Menu;click Gen/Osc,click SW to ON,click Source to Metro and click F6 exit.Click Routing View in the Track Assign section to make the connection from Gen to the track you want to record to and then simply arm the track for recording.

How to route the click to a track
On the Utility Menu go to the GEN/OSC, Set the SOURCE to METRONOME.

Then, go to EZROUTING, find the Gen/OSC and drag a line from GEN/OSC to the RECORDING TRACK of your choice.

VS "PRM EDIT" Button **By Frank Griffith**

Any time you are working with Dynamics & EQ Parameters, there is a little feature that can come in handy if you do not like using the mouse to adjust the Dynamics & EQ settings. Any time you select a CH-Edit button for a TRACK or INPUT then return to the home page, to the left of the virtual PAN knobs on the screen is displayed what fader button has been selected, such as FADER and "TR 1-16" with a green line below it. PRESS TR 1-16 fader button above the red master fader to see this, just below that should be the last CH-Edit button selected, press TRACK # 1's CH-Edit button and below the TR 1-16 should be CH and "TR 1" for Track # 1's CH-Edit selection. PRESS Track # 1's CH-Edit button again. CH and TR 1 stays there. What is significant about this is this…

Too the right end of the PAN knobs on top of the VS2480 is a button labeled "PRM EDIT." PRESS "PRM EDIT," it'll light up RED and watch what happens to the virtual PAN knob display. It changes to show you all of the Compression Dynamics and EQ Parameter settings for that TRACK # 1.

The PAN knobs on the VS are now knobs to adjust all of the parameters for the Dynamics and EQ of that track. To change it to another TRACK's parameters, press any TRACK's CH-Edit button once for the CH-Edit screen or twice just to use the knobs without the CH-Edit screen.

To show an INPUTS Dynamics and EQ parameters while tracking, PRESS the fader button IN 1-16, then the CH-Edit button of the INPUT you want and then PRESS the fader button "TR 1-16." Notice that the display to the right of the virtual PAN knobs on your VGA is displaying the "IN #" you selected and the Dynamics and EQ parameters for that INPUT are still there.

To get back to the PAN knobs just press the "PRM EDIT" button again and the red light goes off. When working with mixing tracks you can PRESS the PRM EDIT button then double press any tracks CH-Edit button twice to see its Dynamics and EQ parameters for fast and easy adjustments.

You can also assign the PAN knobs to be AUX Send 1-8 knobs and other functions but you'll have to see your manual for more on that. I find it a bit more confusing to do more than use it for Dynamics and EQ parameters.

From VS-Planet

Comp/Expander/Gate

Basically we've got 48 of them, but what are they? A guide to dynamic processing.

Most modern digital workstations have like the "big consoles" of the past build in dynamic processing. Every track- and input channel on a Roland 2480CD/HD has one such processor.

In the last years several budget outboard preamps equipped with, or just stand alone, compressor/limiter/expander/gates have seen birth and launch on the market. They seem to be a miracle in itself to give the recordings that extra to become "outstanding".

As they are two means of using dynamics basically, ie.: reducing dynamics/noise-spill and as sort of effect.

For starters: most digital dynamic processors lack the ability to perform as sort of effect, where they can excel as doing their job as dynamic processors. Sound strange?

For this we need a little history. The first dynamic processors where as you guessed analogue. What they basically did was to reduce level, with a certain ratio above a certain input level. Hence the nomenclature on most units! This was mainly done by clever amplifier circuitry and more then once helped by light sensitive resistors. Especially the last option gave a smooth, laid back compressor with lots of side effects, which nowadays are called warm, vintage etc. Well at least you can call it character. Later on there came VCA controlled gear, which worked with less side effects, and had faster working times, making them more tight.

So far, a few new things are introduced, such as laid back, warm and tight. The faster a compressor or any dynamic processor can work, the tighter it will sound. This is due to the fact on how long it will take the processor the reduced the signal level. In other words: as it takes longer, the first transients and signals get thru un-processed. Will it work very fast (like the digital and newer analogue ones) the initial transients/hits will be processed to. This makes a huge different on the processed sound. Lucky enough this time it will take and can be set with the attack-time control. Sometimes basically with fast/slow or with a rotary control. The same goes for the time it takes the processor to return to it's original state of amplifying after the signal level is under the threshold level, which is called release time.

Ok, threshold is introduced.....basically this is what it says to be. Once the signal level exceeds the threshold, taking attack time in count, the processor starts doing it's job. At least for compressors/limiters – which are basically the same in some accounts, whereby gates/expanders work the other way around.

Let's introduce another important thing: ratio. In case of compressors, ratio determinates how much compression there will be above the threshold. For instance if we set a ratio of 1:3, and the level rises 12dB above the threshold, the compressor will apply 12–(12/3)=8 dB of gain reduction and only 4 dB above the threshold level is outputted. So if the threshold was set in this case at –6 dB, the output level shall be –2 dB on the meters. So as a theoretical rule you can apply the following:

Output level = input - ([input-threshold] – [{input-threshold} /ratio])

VS ExpanGate
Airproof, start with the KICK DRUM track.

Invoke the EXPANDER on the TRACK CHANNEL.

Set the Ratio pretty high, 4.00:1.

Set the THRESHOLD to about 12dB.

Set the ATTACK to 0.0, and the DECAY to about 250.

Now, WATCH THE LED "GR" (Gain Reduction) meter, while you play the KICK track and mess about with the settings.

That should get ya started.

Gates work well with Kick and Toms, but not so great on OH or ROOM mics. Some interesting effects can be had by gating a strong SNARE, but not a soft (or brushed) snare.
By Karl

AND another post...
In the "DYN Screen" of the recorded track
switch to EXPANDER
choose an extreme ratio (the lower line is steep)
choose a short attack time
then experiment with treshold level and release time

on the meters you can see (what you hear ☺) if the gate is opened or closed

if you also want to add compression you can switch to "EXP+COMP"

I would say, play with, there is nothing you can damage with your experiments. Listen to this track alone while adjusting and be aware that later with all tracks something will be covered - OK depends on the material.

Compression In General

Use the IN and OUT of each different section to see what effect that particular section has on the signal.....

For example, take a kinda hot channel, and turn the compressor on, but turn the A.GAIN switch OFF. Now, the IN meter is the signal BEFORE compression, and the OUT is the signal AFTER. The GR meter shows how much reduction is being applied to the signal.

Vary the THRESHOLD until you see the GR kick in ONLY on the "hot spots". Now, when the IN goes past that threshold, the OUT gets reduced. You can SEE the difference.

Same deal with the EXPANDER and the EQ. Use the IN and OUT meters of each stage to ensure there is a clean signal all the way thru.

Point is, any signal that goes OVER at ANY point in the chain will add distortion of some sort, and reducing the FADER simply passes a smaller picture of the signal, distortion and all, to the Mix.
Lakestone Karl.

LDT2
"**The expander on each channel can be used as a noise gate. Just crank the ratio to infinity and adjust the threshold to where ever you need it and it'll gate to silence. You can fine tune with the release setting also.**"

Well why do we need them, and how do we use them?

First of all, it may be time to know the difference between the basic four of dynamic processors.

The first group consist of two, ie.: compressors and limiters. Their names explain them a bit already: compressors do indeed compress the sound, so that the signal level will stay between the noise floor and “the red zone” of your metering. This is achieved by correct settings of the device (more on this later!). A limiter is slightly easier: one chooses the maximum level, and the limiter takes care that the signal level will not rise above the set level by cutting in on the volume/level once it rises above the threshold set.

The second group consists of the noise gate or gate and the expander. These units work the other way around and are mainly used to restore dynamics and keep noise/spill out. Simply said the noise gate is the opposite of the limiter: once the signal goes below the threshold, the gate shuts, and silence is heard... Useful on multi miked drums etc. The expander on the other hand reacts more like a compressor, with a ratio of working below the threshold. It works more slight and can be good on use on instruments/vocals which have longer decays and/or release times.

The time for some secrets.....not really!

When, which and how much is the main question here for many of us. When is the first one. As a matter of fact, during recording, I try to avoid using any at all. This might seem a bit weird, but once recorded with the dynamics processed in any way or form is not a thing of undo or so; it’s recorded that way and irreversible!!! What could have been a good take without or with different settings is probably ruined by the wrong settings. (The same story goes for EQing and FX’s before the recording as far as I’m concerned). On very percussive and/or dynamic instruments/voices, I sometimes use limiting set at –0.5 dB to avoid overshoots, and the uninvited digital distortion.

So that was the first use for a limiter! It is also useful to pump up a track in the mix, but can be rude sounding, but he, maybe this is what you want for a track..... Compressors can do also a great job on getting the overall level of a track, or mix, a bit higher by pushing the lower levels up, and keeping the peak level within the save range. It’s hard to say use this or that setting for such a signal. Instead of looking at tables, numbers or so, it is better to understand and learn how a signal behaves. Is it percussive/dynamic or has it got a slow attack and long release, or something in the middle? By understanding the parameters we can adjust, and what kind of signal we have on a track will help us better.

Spend some time with (raw)tracks of snare drum with some spill and hear what a gate can do, or an expander if you like. Pump up a kick drum with gentle compression, or freak out on it with extreme parameter values. It's also nice to play around with a clean guitar track and some expanding for the sheer fun of it. Try spending time on mix, and get vocals more upfront with compression settings, and try to get the feeling of what parameter values make sense for certain tasks. Playing around like this seems to be waste of precious studio time, but it will pay off one day when you are encountering a difficult mix and/or tracks during your sessions. It will also pay of in your overall sound quality in the future, and playing around also learns you to move faster on the machine. Common sense and experience will take you to a higher level of "wise" use of dynamic processing.

Some words to end a summary of things.....

First of all: do you really need any form of dynamic processing on a track? This is always good to ask. If things are proper recorded, and a good source, mics etc. are used, you don't have to do much to get a good mix. Especially to much limiting and compressing can make your tracks and mix sound "un lively", dull and less dynamic. This is something to be aware of. In general: unless used as effect, a good track/mix doesn't need to much EQ, FX's or dynamic processing. What was wrong during recording can't always be fixed with the three groups of processing. If you need them (to) much, maybe it's time to consider what went wrong with mic-setup, or choice of instruments, amps etc.

Some terms short explained again:

Threshold:

The level at which a dynamic processor starts to work, depending on being limiting/compression above the threshold, and gates/expanders below it.

Ratio:

Amount of compression/expanding applied below/above the threshold. Limiters as well as gates have a ratio of 1:infinity.

Attack time:

The time it takes before the dynamic processor starts to kick in. Mostly in mili seconds, sometimes in slow/fast.

Release time:

The time the processing works on, after the level is below/above the threshold again. (Compressor: below and expanders: above)

Make up gain:

The give a rise in overall level, gain can be applied to the compressed signal and the average level will be higher than the unprocessed signal.

INCREMENTS of DATA
*For making really precise edits and for placing the edit points more exact, use the WAVE DISP button above the cursor buttons to bring up the wave form display.

1) Check out the time in the upper left hand corner of the HOME screen. There is a yellow line under one of the double zero digits. There's 00h00m00s00f00 for hours(h), minutes(m), seconds(s), frames(f) and something smaller, "Ticks" I guess.

2) Press the Left or Right of the 4 cursors buttons above the JOG wheel to move the yellow line to seconds or frames and then turn the JOG wheel. The TIME LINE moves in the smaller increments across the tracks. This is good for use when editing tracks with them zoomed in on the wave files. You can easily line up the TIME LINE, (The RED LINE that crosses all tracks vertically) in very small increments for placing edit points.

REGION COPY or MOVE
1) I like having the tracks zoomed in and showing only 4 tracks so I can use the wave form visual for better placement of the edit points. For copying or moving sections of music you can place the time line at the beginning of a section of audio, PRESS the IN button

2) Then move the time line to the end and PRESS the OUT button, this will select that chunk of audio to me copied or moved.

3) Then move the time line to the point where you want the audio to go and PRESS the TO button. The IN of the audio selected will be copied or moved to the TO point. Once IN, OUT & TO are set, the FROM is set automatically. (* You can as many tracks as you want to copy, move, erase etc)

4) Now click on TRACK> and select REGION COPY or MOVE to actually MOVE the audio> and in the next window click on "F1 Sel Trk" button to select the track or tracks with the IN & OUT edit points and the track or tracks to send it or them TO.

5) Here you will see 3 rows of numbers and boxes to check mark. Check Mark the box of the track with your IN & OUT audio edits, then

to the right of the arrow, with your mouse, or JOG wheel, dial in the track to send that selected audio too (the one with the TO point). If it's the same track then you don't have to change it, the same track is listed by default. To move from track to track (16 V-Tracks at a time) hold down SHIFT+JOG, to select V-Tracks then JOG only.

6) Now click the "F5 OK" button and answer YES to the prompt. It'll say Done! Now click "F6 EXIT" to close the Region Copy or Move window.
*Region Copy will "COPY" the data, Region Move "MOVES" the data.

7) If you are not satisfied with the edit, PRESS the UNDO button and then ENTER to erase the current edit you just made. Clear your edit flags by left clicking on them while holding down the CLEAR button and start over, OR...
You can leave the flags there and grab your TO flag and move it to a new position then click on TRACK> REGION MOVE> Sel Trk> etc...

To CUT a section of audio, you just place an IN, then the OUT then select TRACK> REGION CUT> and in the window that open click on "F? Sel Trk" and in the next window check mark the tracks to cut the audio from and click OK. This removes that section of the time line as well so that space will be gone and the two pieces of audio on either side of the highlighted section of audio will jump together.

You can also left click at the IN point and drag to the OUT point, highlighting the audio and right-click and on the menu that pops up then select CUT. You could also select **ERASE** if you just want a silent spot of the time line left.

COPY SONG/PROJECT
If you want to copy a song to this same partition/drive so you can keep the original before region cutting a song to make it shorter or region copying a song to make it longer do this.

Click on PROJECT> Project List> and in the Project List window click on the page button till you see 2/4 and "F1 COPY". Now check mark the project/song or songs to copy. Now turn the JOG wheel to place the box around the drive/partition number to copy the song or songs

too. *To copy to the same partition jog the box all the way up to IDE:0. To copy to another partition jog the box down to IDE:1 or etc.

Now click on “”F1 COPY” and the Project Copy window opens. On the left it shows the project/song to copy, below that what drive it’s on, then on the upper right, the drive to copy the song too and below that “Erase All Projects.” Make sure it is check marked “OFF.” *Unless you want to erase the destination drive clean.

Now press “F5 OK” and it asks “Copy to (your drive you selected?” click on “YES” and “Store Current?” answer “YES” or “NO” if you don’t need to store the current project that’s open. Now the progress bar comes up “Loading… and Copy Project.”

It’ll take a couple of minutes. When it’s done the windows disappear and the current project is still open. If you copied the song/project to the same partition you can go to Project> Project List> and scroll to the end of the list of songs and find it there. You can go to Project> Name> and rename the current project so you don’t get them mixed up. *To check a song on another drive you have to select that drive from the project list window.

USING REGION MOVE TO SHORTEN A SONG
HERE'S A VISUAL OF WHAT TO DO.....

Song Intro TO Part to cut IN Song End OUT
>>>wav>>>>>//>>>>>wav>>>>>>>//>>>>>>>>>>>>>>wav>>>>>>>
Section # 1 Section # 2 Section # 3

EDIT Points TO IN OUT>

Jog the TIME LINE to the EDIT points and PRESS the appropriate button to place the EDIT points as shown above.

You want to cover up section # 2 with section # 3 removing section # 2 from the song. Placing the IN point and OUT point will highlight section # 3 to be moved over section # 2. The IN point will meet with the TO point once the edit is made covering up section # 2 leaving only sections # 1 & 3 to be heard when played.

NOW click on TRACK>> REGION MOVE>> and a small window opens, click on the “F”1 Sel Trk">> another window opens. Select ALL tracks to REGION MOVE >>> then click “F5 OK” and “YES” you’re sure then “EXIT.”

Now check your edit and see if you like it. If not press UNDO and ENTER to start over or if you like it, hold CLEAR down and click on the flags with your mouse and they’re gone. If you want to try again, you can just left click and drag the EDIT FLAGS to new positions and go to TRACK>> REGION MOVE>> and repeat the edit. If not then hold down the CLEAR button and press each edit button, IN, TO, OUT one at a time to clear out your edit points/flags and start over or left click on the edit flags with the mouse.

USE REGION COPY TO MAKE A SONG LONGER

Let’s say you want to make a song longer. I like having the tracks zoomed into show just 4 tracks that will give me a good visual of the wave form for more accurate placement of my edit points. You’ll have to decide what sections to copy to where.

For this example, let’s say you want to repeat the last chorus and solo. What you can do is jog the time line to place an IN point at the beginning of the chorus to repeat and then jog and place an OUT point after the song fades out. This has now selected that chunk of audio to Region Copy to a later point in the song.

Jog the time line to the later point in the song, like at the end of the chorus and solo that’s to be repeated and place a TO point. The FROM is placed automatically.

Now to Region Copy click on TRACK> Region Copy> and in the window that opens select “F1 Sel Trk” and in the next window, check mark all of the tracks to be copied to their same track and click “OK.” Click “EXIT” to close the window and check your edit to see if you like it. If not press UNDO and ENTER to start over and try again or if you like it hold CLEAR down and left click on the edit flags with your mouse to remove them.

USE REGION CUT TO SHORTEN A SONG

Zoom the tracks in so only 4 tracks are showing, this will allow you to see the wave form better for placing your edit points. *We use Region Cut because if you copy the end of a song to the front part, you will have a tail of the original song at the end of the new shorter song that you will then have to perform a Region Erase on.

Region Cut will cut out a solo or a chorus and bring together the two pieces on either side of the cut. You place an IN point at the beginning of a solo or chorus and an OUT point. *Notice the TO and FROM is automatically placed, you don't have to worry with it.

Now click on Track> Region Cut> and in the window that opens select "F1 Sel Trk" and check mark every track in the song to cut to their same track, then click "F5 OK" and "YES" you're sure then "EXIT." Now check your edit and see if you like it. If not press UNDO and ENTER to start over or if you like it, hold CLEAR down and click on the flags with your mouse and they're gone. If you want to try again, you can just left click and drag the EDIT FLAGS to new positions and go to TRACK>> REGION CUT>> and repeat the edit.

TRACK EXCHANGE

Sometimes we need to change the position on the tracks line up so we use the TRACK EXCHANGE feature in the VS. If you want to exchange, let's say TRACK #1 with TRACK #10, then you…

1) Click on TRACK at the top of the HOME screen and

2) Select TRACK EXCHANGE from the drop down menu and a TRACK EXCHANGE window will open. In this window there are 3 rows of 8 TRACKS and their V-Tracks.

3) In the first row place a check mark in the empty box to the left of "1-1 ←→ -", it will change to "1-1 ←→ 1-1" and become highlighted.

4) Now with your JOG wheel dial in the right numbers "10-1" and the set should look like "1-1←→ 10-1", meaning TRACK #1's V-Track 1 will be exchanged with TRACK #10's V-Track 1.

Basically, TRACK #1 and TRACK #10 will exchange positions. You can also dial in V-Tracks here.

5) Now click “F5 OK” and answer YES to the 2 prompts and the process will take place. If any track title has been type in then the title will move with the track too. You can also EXCHANGE pairs or several tracks at once.

6) Now click “F6 EXIT” to close the TRACK EXCHANGE window.

*When using the TRACK EXCHANGE feature, make sure, when you are in the TRACK EXCHANGE window, that other tracks do not have check marks in their boxes because those tracks will be exchanged also. This can happen once you have done a previous TRACK EXCHANGE they can still be check marked the next time you go in to do another EXCHANGE, so be careful, tracks can get lost this way and create a lot of confusion. When this happens, I go in and tell it to do the EXCHANGE again to bring the lost tracks back to where they were in the first place.

COPY PARAMETERS

To copy the Dynamics, EQ and Level settings from one Track’s or Input’s to another you have to Press the CH-Edit button of the Track or Input that you want these settings copied to. Let’s say you Exchanged Track#10 with Track#3 and you want Track#10’s Dyn,EQ & Level settings from it’s channel edit page to be moved to Track#3 after the Track Exchange of Track#10 to Track#3, you would do this.

1) Press the CH-Edit button on Track#3 and at the bottom of the page 1/5, you’ll see “F5 CpyPRM”.
2) Click on “F5 CpyPRM” and a small “Copy Mixer Parameter” window opens with SOURCE Ch on the left and COPY TARGET on the right.
3) Simply use the mouse to drag the SOURCE display to show TRACK 10 in the window (or highlight and jog) then in the COPY TARGET side select ALL. There are 4 selections here, ALL, DYNAMICS,EQ and LEVEL so you can do all or one of them at a time.
4) Once your selections are made click on ENTER and the copy will be made. You can not use UNDO to undo this step.

*NOTE: Also, as you dial through the selections under SOURCE, linked tracks will show up as linked ie. Track 1/2.

TRACK EXPORT (.wav format)
To export a track or tracks to a CD-R or RW from a 24bit, 44.1k MTP project, just click on CD-RW Mastering> select TRACK EXPORT> and INSERT a blank disk. Now the EXPORT window opens.

In the TRACK EXPORT window all tracks and V-Tracks are listed 16 at a time in the window on the left. You will see an empty box and "1 – 1: Your Track Name" for Track 1 V-Track 1. Place a check mark in the empty box to the left of the track name and use the down arrow to scroll to the next track "2 – 1: Another Name" and place a check mark there too and so on for all the tracks to be exported. (You can also export your master tracks using this method, just find the V-Tracks on tracks 23 and 24.) Once you have selected all tracks to export Click "F5 NEXT".

The VS scans your blank disc and puts up a list of all selected tracks. In this window select VERIFY to "ON" with a check mark and for CD Speed select "MAX" and then click "F5 OK" and the VS will start burning the selected tracks to disk. This can take several minutes just for a couple of tracks. You will see the blue progress bar and "Now working" in the middle of the screen. The disc will eject when done.

The exported tracks will be in 24bit @ 44.1k in .wav format from an MTP project for loading into other PC audio programs like Pro Tools & Sonar. They are not audio files to be played in a market/home CD player.

Also, if you put the CD-RW with the track on it into your PC, process it with Auto-tune or whatever audio application you have. Save it to a folder you can find, or name if different so you can find the processed file instead of the original like naming it #2 or something.

Then open that folder in it's own window and then open the window to the CD Burner. Now drag and drop the processed file into the blank CD-RW window click File> Write these files to CD> and the XP Wizard will open, you can name the disc in the first window where there is a highlighted date then click NEXT, in this window be sure to

select Data Audio not CD Audio for players, then after it burns it to disc stick it into the VS.

Note: When you track export tracks using “Track Export” through the EXPORT WINDOW out of a 24bit 44.1k MTP project, they stay at 24bit 44.1k. .wav files. If you master your tracks in the mastering room as non-CD-R Node, those master track can also be EXPORTED out of the VS using this method and will be 24bit, 44.1k, .wav stereo files, same as the project’s mode.

WAV IMPORT Insert CD of .wav files, Now go to the CD-RW MASTERING menu and select WAV IMPORT, a window opens after the VS scans for the CD-RW, the WAV IMPORT screen opens with a list of files on the CD. (You may have to open a folder on the CD-R/RW disc first by clicking “F5 ChgDir”).

Highlight the file to IMPORT and click “F5 Select” and a destination screen opens. Here you select which tracks to send the file to on the VS. Select the destination track and use NORMAL under “CONVERT TYPE”. “TO” sets the time position to send the .wav to in the VS project. The Track Status lights on the VS light up when you send a wav file to them. Once all is set correctly click “F5 OK” to IMPORT the file. When the VS shows “DONE” click “F1 Back” to return to the IMPORT screen to import more files or click “F6 EXIT” to exit the wav import screen. This is a bit brief but you'll figure it out. See pages 354 to 358 in the Roland manual.
Note: You can only WAV IMPORT one file at a time.

Now, if you use track export to export to CD and bring that into a PC audio program, you need to match the bit rate of 24bit in the audio application or have an audio program that will convert 24bit to 16bit if needed. Otherwise you can end up with noise in the .wav file when listening to it at the wrong bit rate. Anytime you use “Track Export” out of the VS, the file will match the projects bits rate and sample rates. A 48k project exports 24bit 48k .wav files. A CDR project exports 16bit 44.1k .wav files.

When you use **“Wav Import”** in the VS the files will be converted to match the project. The VS accepts only ISO 9660 format data CDs, a

standard for most. Just select “Wav Import” from the CD-RW Mastering Menu and insert the disc. Say you want to master 48k 24bit masters you would use “Track Export” to export them to CD out of the 24bit 48k project and use “Wav Import” in the 24bit 44.1k project to convert them into 24bit 44.1k project .wav files.

EXPORTING MASTER TRACKS

Even though you have to check mark both the left and right mono tracks in the track export window, the VS will still combine them into one STEREO PAIR in to a single stereo file as long as you have them LINKED. Some people call them forward in the HOME screen, selecting the V-Tracks they are on and then link them on track 23’s CH-Edit page but this is not needed, IMO. You can try it both ways if you want.

Also, if you export mastered tracks, the CD-R Mode 16bit pairs will be exported as stereo .wav files but with the non-CD-R mode mastered tracks in 24bit, if you do not have them linked and check mark the L & R tracks to be exported, they will turn out to be MONO .wav files. If you want STEREO .wav files, be sure to link them and check both left & right to be exported at the same time. It can be tricky but you can export STEREO .wav format mastered tracks in 24bit.

TRACK IMPORT(Importing tracks or master tracks from other projects)

1) Open a new project and click on TRACK> select TRACK IMPORT, a window opens with a list of all of your songs on your hard drive on that partition.
2) Now Select the track or master tracks to IMPORT, a rectangular box will surround it,
3) Click “F5 Select” to get to that projects mastered V-Tracks or tracks, a new TRACK IMPORT window will open. Notice the track’s title is there and two areas, SOURCE → and Destination.
4) In the SOURCE window click on the scroll bar’s UP and DOWN arrows to find the track or mastered pair of V-Tracks. For master tracks, Make sure the first song’s LEFT V-Track is selected and appears in the small rectangular window under SOURCE. We can only Import one side at a time. The RIGHT V-Track will have to be done by it self next. So…select “23-16:V. T23-16” first! “24-16:V.T24-16 next time around.

5) Next, we have to select the DESTINATION track to send the SOURCE V-Track or track too. In the DESTINATION window, make sure that the master track “1L-1:V.T 1-1” or your track is selected and appears in the Destination window. It should be there this first step. If not, use the UP and DOWN scroll arrows to select it. Clicking on them moves it 1 track’s full 16 V-Tracks at once.
6) Now click the “F5 OK” button and answer “Yes” to Are you Sure and “YES” to Store Current Project. A progress window will appear. When done, move on.
7) For master tracks: Now Track# 1 has the Left track of the song IMPORTED to it. Click TRACK> TRACK NAME> and select “F1 NAME” and name it the title of the Song. Click “F5 OK” and then click “F5 EXIT” NOW……REPEAT STEPS 1 thru 7. This time IMPORT the R side V-Tracks to TRACK 2 in this project, then LEFT then RIGHT etc.

*From what I understand, you can only TRACK IMPORT tracks from projects that are in the same sample rate and project mode. To IMPORT 48k tracks into a 44.1k project, you have to transfer them to PC, burn them to a CD then IMPORT the 48k tracks from the CD into the 44.1k project. The VS will convert the 48k track to 44.1k using the WAV IMPORT feature on the CD-R Mastering menu in the 44.1k project.

CD-CAPTURE

Pretty basic, Open a new project, insert the CD in drive. Click on CD-RW Mastering Menu> Select CD Capture> it’ll scan the CD, then in the window that opens you will see a list of the tracks/songs in the bottom right quad, highlight to select the track to capture,on the left where it says “Destination track” Left click and scroll the Track and V-track number to send the left side of the stereo tracks to and the right side just below it will follow, select Capture to Zero, Start of track, Capture whole track, then click OK and it should send the track to the new project on the destination tracks you selected.

USING A-Punch

1. Jog the time line to where you want the A-Punch to come in, hold down the A-Punch button and press the IN edit button.
2. Jog to the point where you want the A-Punch to end, hold down the A-Punch button and press the OUT edit button.
3. Jog a ways before the IN point so you have time to get in rhythm with the song.

4. Press Record/Play and then play along with the song. The A-Punch will automatically come in on the IN and go out on the OUT. You can also get out of it by just pressing the STOP button.
5. Then hold down the CLEAR button and left click on the A-Punch edit flags to remove them. They will interfere with recording a regular track later.

Manual A-Punch

1. Jog the time line ahead of the point where you want to punch in and press PLAY.
2. When the time line plays to the point you want to come in, press the RECORD button.
3. Once you have played the part you want just press PLAY or STOP.

*You may want to use the WAV DISP screen to clean up the edit points later, just highlight it, right click and select DELETE. I like using the Auto A-Punch, the edits in and out are usually cleaner and more precise.

So you powered off your 2480 without saving that great live gig you recorded last night?

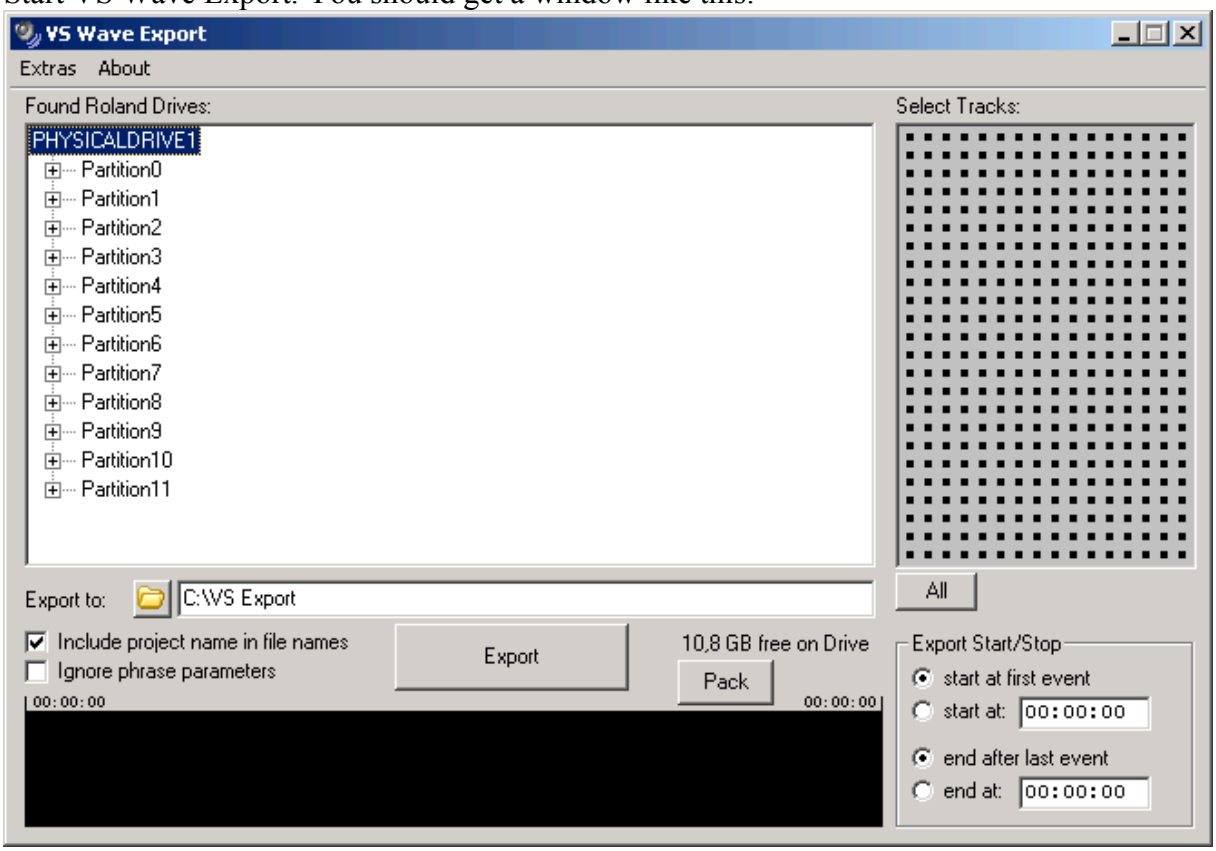
This document should guide you how to get at least some of the recording back by using VSWaveExport Software.

First some clarifications to dampen the optimism:

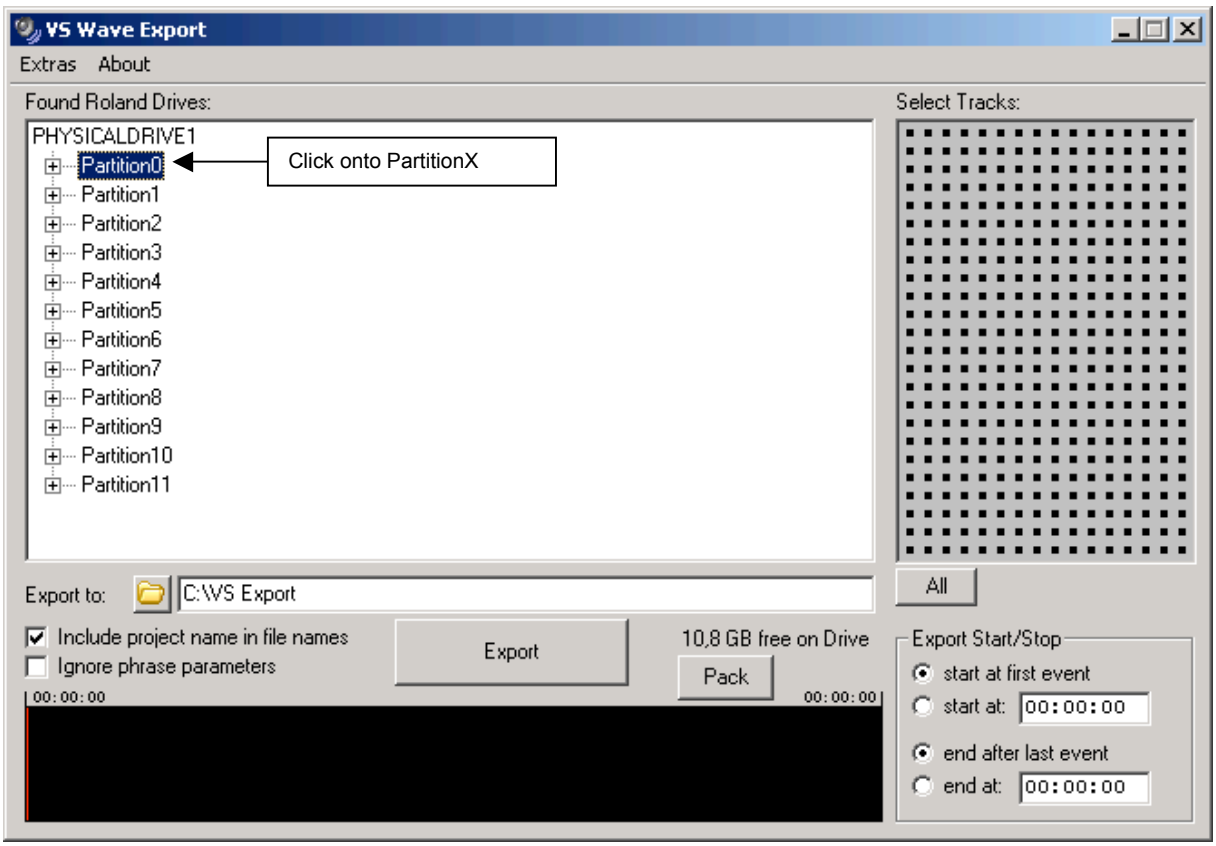
- The more fragmented your hard drive is, the lower the chance to get back a long continuous recording. This means if you recorded to a freshly formated partition you may get back 100%; if you heavily recorded and edited on that partition and the last format was 5 years ago, that percentage will be (much) lower
- Everytime you hit stop and rec during the recording presumably also lowers this percentage. This means if you recorded 2 hours nonstop you have good chances to find a long continuous bunch of data you can recover
- Every write operation to the partition in question after the unintentional power down will lower the percentage of recoverable data. If you, for example recorded another session or used a PC disk repair or recover program you may have overwritten the audio data you want to recover.

So, lets get practical now. You have connected the VS internal IDE drive to your PC and the PC has recogized the drive? Fine! If you have not connected the drive by now and you are unsure of what to do then look out for descriptions on the web on how to connect an IDE harddrive to a PC.

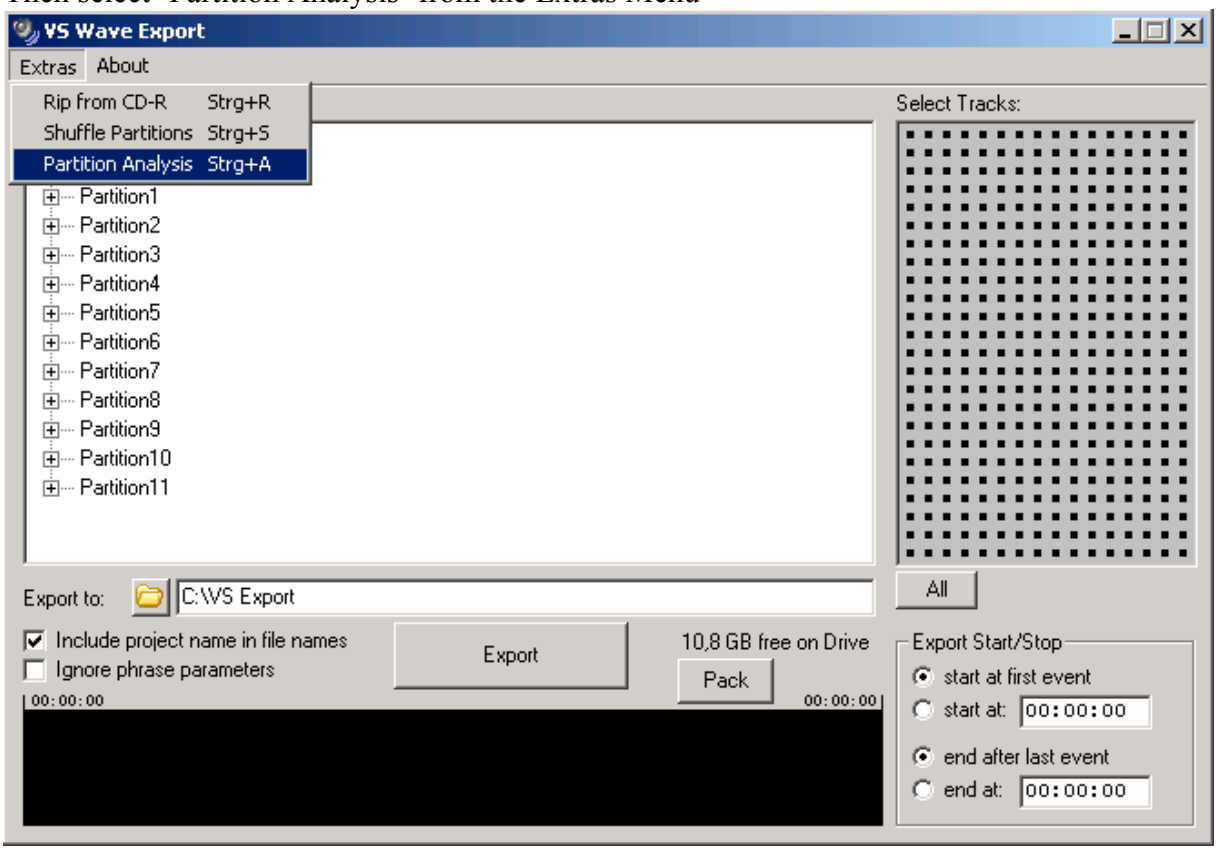
Start VS Wave Export. You should get a window like this:



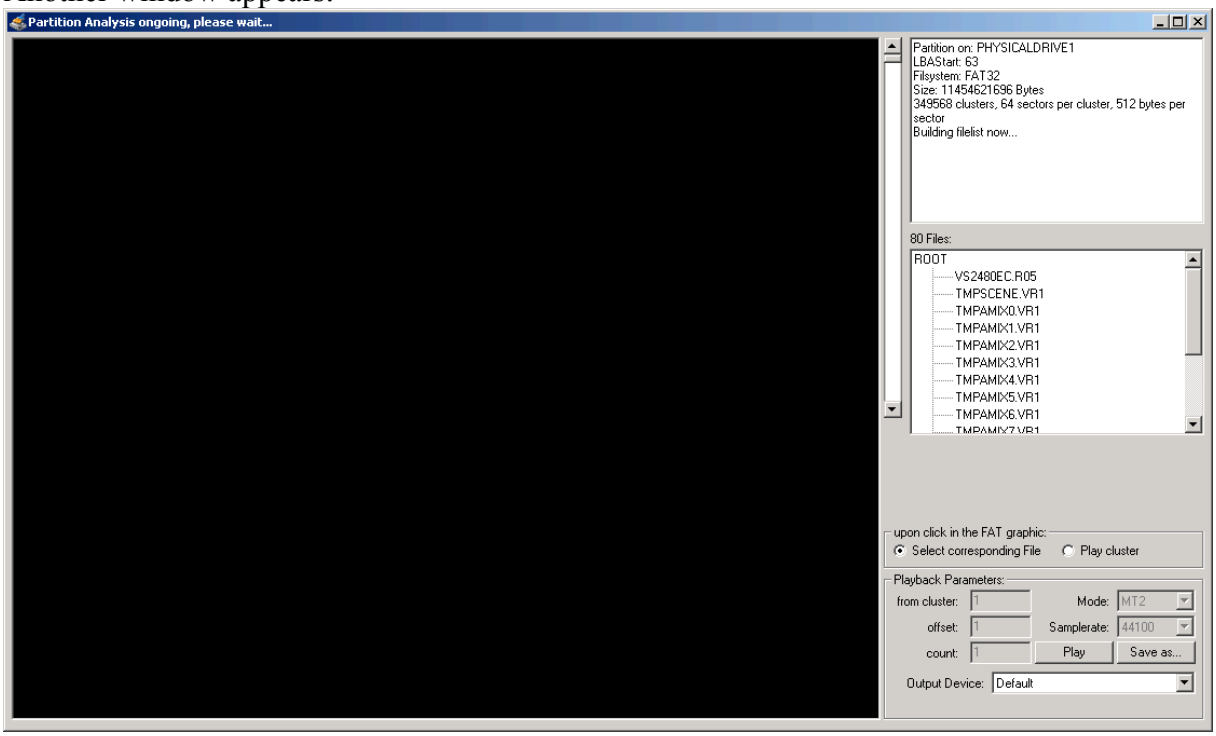
This shows all partitions of the drive.
Now highlight the partition where your lost data is.



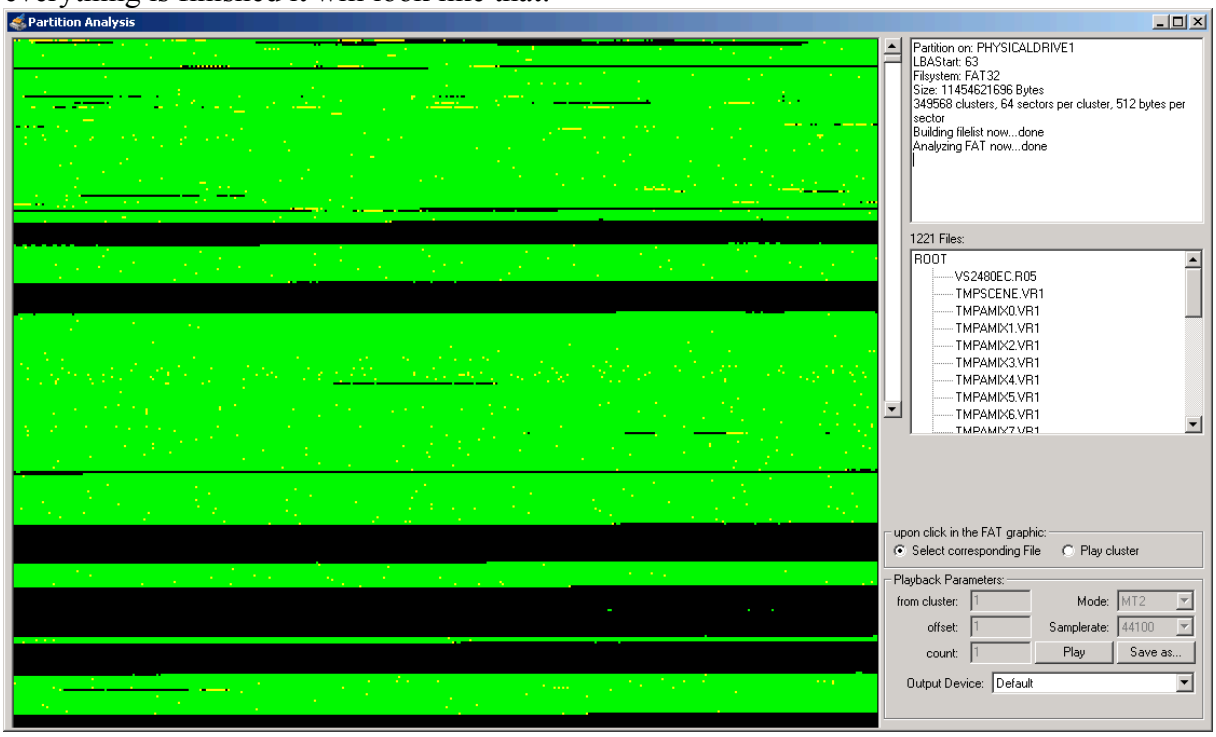
Then select 'Partition Analysis' from the Extras Menu



Another window appears:

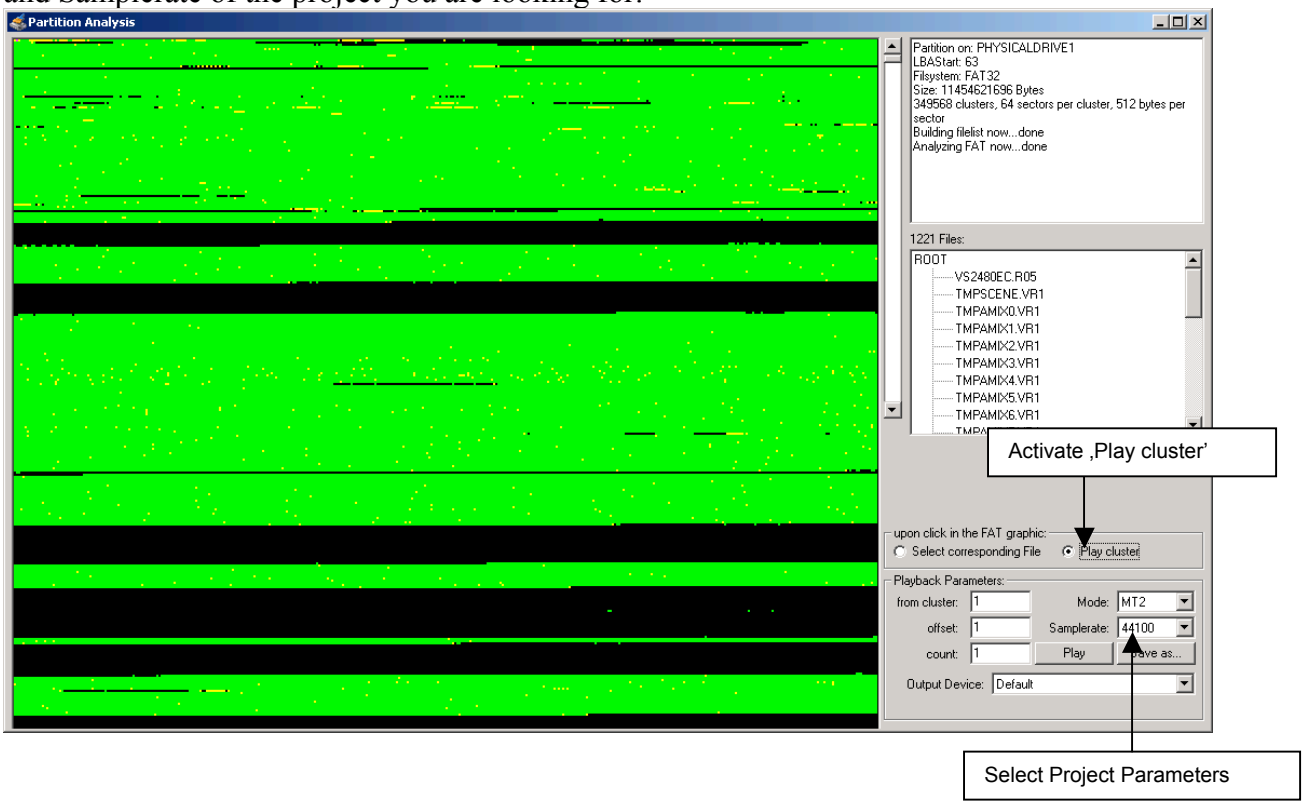


The partition is now read, note the filecount increasing. This can take a while. When everything is finished it will look like that:

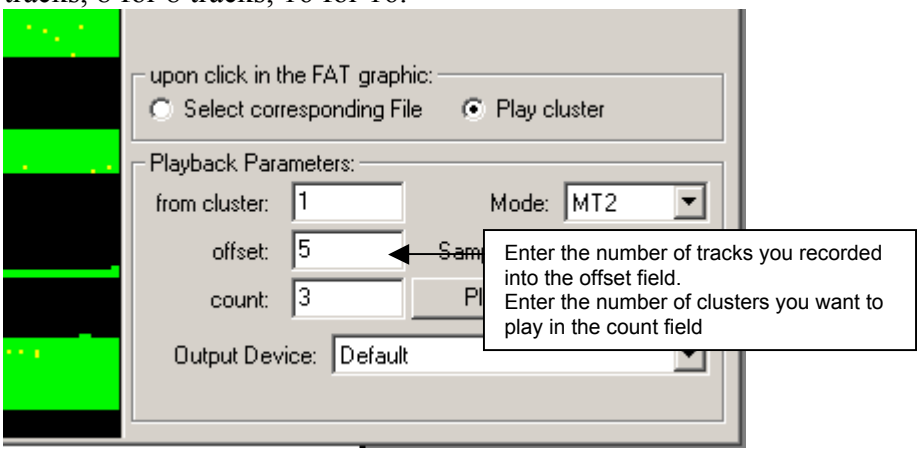


The green/black/yellow area is a graphical interpretation of the FAT (File allocation table) and indicates used sections (clusters) on your drive. The green and yellow dots mean that a known file is allocating these clusters. Note that you can scroll the FAT graphic with the scrollbar. The data you are looking for is in the black areas.

Now activate ‘Play cluster’ in the ‘upon click in the FAT graphic’ area and select the Mode and Samplerate of the project you are looking for:



OK, now turn your speakers down! If you click a wrong cluster you might get a terrible noise. Now move your mouse over the black area of the FAT grafic and click somewhere. VS Wave Export will play the content of the clicked cluster, no matter what is in there.
One cluster equals more or less one second of audio. You should be able to determine what is recorded in that cluster. Look out for your gig. You can also set the app to play more than one cluster, which may make it easier to identify the material.
But before doing this you must understand how multitrack recordings are saved by the VS:
If you record 8 Tracks at the time, the VS will place the audio data of this 8 Tracks in consecutive single clusters. This means that cluster 1 will hold one second of audio data for track 1, cluster 2 will hold one second for Track 2, …, cluster 8 holds one second of Track 8. After that the next recorded second follows: cluster 9 holds the 2nd second of Track 1, a.s.o. Therefore if we just play clusters 1,2,3 we would mixup Tracks. Instead we must play cluster 1,9,17,25,33, aso to hear Track 1.
You can do this by setting the ‘offset’ to the number of tracks you recorded at once: 2 for 2 tracks, 8 for 8 tracks, 16 for 16.



Every time you click into the FAT graphic the ‘from cluster’ value will be changed to the clicked cluster.
Your task is now to find the right values for ‘from cluster’ and ‘count’ so that a long contiuous recording is played. Instead of clicking into the FAT, you can also edit the ‘from cluster’ field and hit the ‘Play’ Button to playback the selected clusters.
You do not need to playback and listen to all selected clusters. For example, if you recorded 8 Tracks and found Track 1 starting at cluster 12345 and playing fine through the next 5 clusters (12345, 12353,12361,12369,12377 and 12385) you could directly go to cluster 16345 (=12345+500*8) and verify if Track 1 is still playing. If yes, the chance is very good that you found 500 consecutive clusters of Track 1.
But be aware that every green spot (used cluster) in between will break up continuation, as the VS cannot use this cluster when recording, it will stop here and continue placing recorded data somewhere else.

Once you found a passage that you want to recover, setup all cluster parameters (in the above example this would be ‘from cluster’=12345, ‘offset’=8, ‘count’=500) and press the ‘Save as’ button, you will be prompted to define where you want to save the recovered data, and to choose if it shall be saved as Wave or RDAC Format after that hit save and the file should be created.
You can then continue to search for other contiuous blocks.

After you extracted all data you could find, you can align the recovered data in your audio software. As a rule of thumb, consecutive recorded clusters should align perfectly at cluster boundaries. This means in the above example Track 1 recovered from clusters 12345, 12353,12361,… to 16345 should line up with Track 2 recovered from 12346, 12354,12362,… to 16346 and Track 3 (12347-16347) a.s.o.

Good Luck!

Technical Stuff:
1 cluster on a 10Gig Part formated with the 2480 equals

- 32768 Bytes equals 32768 24bit samples at MTP or
- 32768 16bit samples at MT1 or
- 43680 16bit samples at MT2

VS DAO (Disc At Once) Live Recording By Frank Griffith

If you have a live recording of a performance with several songs in a roll that you want to burn to CD and have track markers for each track on the CD do this.

1) Run the whole recording of the performance thru the Mastering Room using CD-R Mode.
2) When done bring those mastered V-Tracks forward in the home screen by selecting them from the tracks 23 and 24's V-Track map.
3) Now place CDR Markers where you need them by holding down the "CD-RW Mastering" button and pressing "TAP." This will place BLUE MARKERS that will make players recognize it as a Track Marker. **Place no marker on the first song**, it's placed automatically during CD-R Write.
4) Now you're ready to burn the whole list of songs to CD-R. Just go to CD-RW Mastering Menu and select CD-R Write as you insert a blank CD and be sure to select "Disc At Once" MODE in the CD-R Write window, MAX speed and OK. That's it.

To separate each song into its own project, say you have 4 total:

1) PROJECT> COPY the existing project 4 times. Now giving you (4) copies of the same project.

2) Open each project, and use REGION CUT to cut out everything that you do not want in that project making it a one song project.

3) Also, OPTIMIZE each of the projects to make it smaller, only holding one song instead of all four. Rename the projects for each song.

4) DELETE the 3 unused projects you created leaving you with the original recording and the single song projects.

If you take the time to NAME THE TRACKS in the original Project, each single-song project will also have the names in place.

Settng up a De-esser Effect

Although there is no specific effect patch for de-essing, Preset 022 (Vocal Multi) may be modified for that purpose. Use the following procedure to modify an effects preset to serve as a De-esser (in this example, Effect 1 is already set up as Preset 022):

1. Press DISPLAY(HOME) to start from the main screen.

2. Press EFFECT. Press F1(FX1) to choose the first effects processor.

3. Press F3(EDIT) to edit the chosen effects patch. Press F2(Next->) to get to the next section of the effect.

4. "[Vocal Multi] lmt" is displayed. CURSOR to the "Mode" option and choose "De-esser" with the TIME/VALUE dial.

5. Further adjstments for the De-esser effect (Sens and Freq) are now displayed. use CURSOR and the TIME/VALUE dial to change the values.

From Brett's site… http://www.rolandvs2480.net/

*Basically you can choose one of the VOCAL MULTI presets (P139 thru P148), enter the LIMITER module, and you can select LIMITER or DE-ESSER mode. By Karl.

LDT says…I usually use the analyzer to see which freq the ssss is most prominent to choose a freq point.

Try turning the sens up to 50 to make it more audible, but be careful or you'll add a lisp to the vocal.

Also bring the DES down to hit it harder (think of it as the threshold on a compressor).

*You can find this info and much more on the VS at Brett's site...

http://www.rolandvs2480.net/

LOOP EFFECTS (known as Send & Return EFX) By Frank Griffith

Loop effects work a bit differently, you have to SEND the effect thru the aux bus and RETURN it thru the FX RTNs (Effects Returns). PRESS TR 1-16. If you want to LOOP an EFFECT to a vocal TRACK that's recorded on TRACK #5 here's what you do. First, go to EZ-Routing> Routing View> and under "TRACK ASSIGN" you see the FX RTN Block with 1 thru 8 they match EFFECTS 1 thru 8, make sure nothing is connected from the FX RTN to the track you are recording too, the RECORDING TRACK number, which in this case is TRACK#5, we only use this when bouncing TRACKs with effects or adding effects to INPUTs for recording/printing effects and will cause feedback if connected at this time. Before you will hear an effect you have to PRESS IN 17-24/AUX MST Fader Button and make sure the AUX1 thru AUX8 Faders are set to 0db, then PRESS TR 17-24/FX RTN Fader Button and make sure FX RTN1 thru FX 8 Faders are set to 0db. Now PRESS TR 1-16 form the TRACK MIXER and then click HOME.

Now, PRESS the CH-Edit button above TRACK #5 and on the Dynamics/Compression and EQ Parameter graph screen at the bottom, find the AUX knobs. AUX 1 thru AUX 8 are routed to EFFECTS 1 thru EFFECT 8. These AUX knobs will control the amount of an effect to be used on a TRACK. Let's say you have a REVERB you want on this vocal TRACK #5. Click on EFFECTS -> Select EFFECT 1-> a window opens, click on the "F1 PATCH", in this window highlight P001 Reverb 2 and click "F5 SELECT", now it is listed above SELECT as the "CURRENT" one patched in. (You can use the scroll bar arrows to find other effects patches when needed) Now click on "F6 EXIT" twice to back out of the EFFECTS window.

Now you can turn up the AUX1 knob to 0db to add this EFFECT to the TRACK MIXER and TRACK#5. Now PRESS Play to hear the vocal track with reverb. Make sure TRACK #5's TRACK STATUS Button is lit GREEN for PLAYBACK.

Now, to adjust the amount of REVERB from EFFECT 1 that you want added to the Vocal TRACK #5 just PRESS the CH-Edit Button above TRACK 5's Fader and use the AUX1 knob to turn it up or down with your mouse by Left Clicking and holding and moving your mouse up or down, or you can click on the AUX parameter to select it and use your JOG wheel as a knob.

Remember, Fader button IN 1-16/Solo takes you to the INPUT MIXER and FADERS and Fader Button TR-1-16/Master Edit takes you back to the TRACKS MIXER and FADERS. You can use the Fader Buttons IN 17-24 and TR 17-24 in this same way. All INPUTS and TRACKS have their own CH-Edit page with Dynamics, EQ, Auxs and EFFECTS.

LOOPED EFFECTS ON INPUTS (To print/record effects)
To LOOP an EFFECT to an INPUT you would do the same as above. Have your EFFECT already PATCHED in, like P001 Reverb 2, and PRESS IN1-16, find your INPUT, PRESS its CH-Edit button, and turn up the proper AUX knob.

Now here's what's different. Go to EZ-Routing> Routing View> and in the left hand bottom side of the screen under "TRACK ASSIGN" there is a FX RTN1 thru 8. To complete the LOOP to the INPUT, you must connect that FX RTN number to the TRACK (on the RECORDING TRACK block) that the INPUT is sending it's signal too. Let's say you have a mic on INPUT1 recording a vocal to TRACK #5, and you are adding the reverb of EFFECT1 to it, then FX RTN1 must be connected to TRACK #5 to complete the LOOP for recording the reverb to that TRACK. This same connection has to be made when bouncing tracks with effects too. That's the only way the effect will get recorded/printed with the track.

Now, what's odd or can be a bit confusing is this, when you have a track recorded dry and you want to add a reverb to that dry track to be heard during playback or recorded during mastering, you do not have to connect the FX RTN virtual cable to the destination tracks, that routing is done automatically on the track mixer for recording it in the mastering room to master stereo V-Tracks.

INSERT EFFECTS
First off, you need to know, each fader has two buttons above it. The first one is the TRACK STATUS Button. GREEN for PLAY, Blinking RED for ready to RECORD or ARMED, steady for recording and no color for OFF. The second button just above the TRACK STATUS Button is the CH-Edit Button, (channel edit). This button brings up a screen for each TRACK & INPUT and has your Dynamics/Compression and EQ Parameter graphs, your INSERT EFFECTS and all of your AUX Busses on it. (Plus many other things we won't worry about now.)

On the CH-Edit page you can add INSERT or (Send & Return) LOOP Effects to the INPUTS and/or the TRACKS. All of them. When you PRESS TR 1-16 Fader Button (above the master red fader), the CH-Edit Button on each TRACK will open for use. When you PRESS IN 1-16, the CH-Edit Button will now open for use with the INPUT you are on. Each TRACK and INPUT has it's own CH-Edit Button and page of EQ, Compression and EFFECTS abilities. Now let's add an INSERT EFFECT to an INPUT to PRINT it when we record.

PRESS IN 1-16/Solo button above the master red fader. Now your faders are set for INPUTS. If you are adding an EFFECT on INPUT #1 then PRESS the CH-Edit button above fader #1. The page with EQ and Compression graphs on it will fill the screen. Below the Compression graph is where you will find the EFFECT INSERT and under it, FX1 thru FX8. If you are using the EFFECTS Processor #1, then click on FX1 once. (It has 4 positions) You want the first position for now. See "VS INSERT EFX.doc" for more about these positions.

Now Patch in your EFFECT by clicking on EFFECT> then EFFECT#1> a window opens, select the "F1 PATCH", now in this window, highlight the effects patch you want to use, by default P000 is usually highlighted black, select P001 Reverb 2 for this exercise and click the "F5 SELECT"> then "F6 EXIT"> twice.

Now click HOME and above the Red Master fader, PRESS IN 17-24/AUX MST and make sure all AUX FADERS are set to 0db, then PRESS TR 17-24/FX RTN button and make sure all of the FX RTN faders are set to 0db(especially the one you are using, fader AUX1 & FX1 for EFFECT1). Down the road you will need these up for LOOPED effects so it's good to have them setup all the time anyway.

Now, when you record INPUT #1 to any TRACK, the EFFECT Patch you selected to use, P002 Reverb 2 or any you may have chosen, will be printed to the TRACK as long as you connect the FX RTN of that EFFECT number to the DESTINATION in the RECORDING TRACK block.

How do you route and input? Click on EZ Routing> Routing View> and on the left hand side of the screen find INPUT MIXER with 1-24. INPUT #1 can be clicked on, it'll turn blue and the other end of it can be dragged to any of the RECORDING TRACKS 1-24 below the INPUT MIXER. By default

INPUT 1 is connected to RECORDING TRACK 1, 2 to 2, 3 to 3 etc. (You can connect any INPUT to any TRACK or several if you want.) Once you connect you input where you want it, click HOME. Now arm your track to record and record the INSERT EFFECT with your track.

For this next part, keep in mind all AUX busses and FX RTNs numbers match the EFFECTS Processors numbers. EFFECT 1 routes thru AUX 1 and FX RTN 1, EFFECT 2 thru AUX 2 and FX RTN 2 and so on.

EFFECTS, COMPRESSION & EQ IN BRIEF

When you press the IN 1-16 fader button above the red master fader, all of the CH-Edit button on that bank take you to the INPUT side and you can add Compression, EQ, Insert & Loop Effects to the INPUT signal that gets recorded to the TRACK. For more on Dynamics & EQ Parameters see "VS EQ Bass&Kick.doc."

When you press the TR 1-16 fader button, all of the CH-Edit buttons now take you to the TRACK side and you can add Compression, EQ & Effects to already recorded tracks or to tracks while they are being recorded. That way you can hear the effect while recording but not actually record the Effect, Compression or EQ. Effects, EQ and Compression added to the track side only gets recorded when you are mastering you song or if you bounce a track with effects. See "VS SUB MIXES.doc" for more on bouncing tracks with effects and for more on Dynamics & EQ Parameters see "VS EQ Bass&Kick.doc."

SOLOing EFFECTS on a SOLOed Track

Go to your FX RTN Screen by pressing

1) TR17-24/FX RTN then press
2) 2) Channel Edit button of the FX to solo.
3) Solo button over fader on VGA (next to MIX & MUTE).

*See VS Manual for a list of which effects are used as Insert and which you should use as a Looped effect.

EQing Bass & Kick
The “Q” is default at 2.00, it’s the bottom row of knobs under the EQ graph. These can be turned up to 5.00 or more and that’ll make the middle red arrows on the graph have a sharp point when you drag them upward or a sharp dip when you drag them downward. Once you do that you can sweep them left & right to find certain frequencies in the signal that may sound bad or good. The good ones you want to drag up, the bad ones you want to drag down. That’s how you first, find the frequencies in question then carve a hole in them to either get rid of a signal or carve a hole to let another signal come through.

Now, Press the CH-Edit button of the bass track to get to the Parametric EQ graph. Take your bass guitar track and bring it up about 1-3kh in the parametric EQ by grabbing the second red arrow from the right and dragging it up. Now turn the “Q” knob, the one on the right and turn it up to around 5.00. This is the bass "burp" area of the frequency. This is called a notch.

Now, while the bass is playing...solo out the bass and kick...left click and grab the second red arrow from the left side of the EQ graph notch and sweep that kick frequency back and fourth (left & right), you will notice at one point that...

Your kick drum will "disappear" some what, when sweeping (moving the red arrow notched back and fourth)...this is where your bass and kick are sharing the same frequency. Take that frequency and drag it all the way down to carve out a hole in your bass track so the kick can come through. Adding anything below 200Hz can add muddiness to the bass track so keep that in mind.

Now take between 40 and 60hz on the kick channel and slowly turn it up until the low end on both the kick and the bass is clearly heard at around the same increase in decibels. Now take and grab the red arrow around 4-6k on the kick and turn that up by dragging the red arrow up until your kick gets the desired amount of "crack".

By notching and sweeping both tracks you can find the frequencies that you want add too and cut away. Experiment with this on both the bass and kick tracks till both sound right to you. Only you can hear this and decide what sounds best. The bass and kick are so close that in some cases they over lap the same frequencies so carving out holes in one or both can help to hear each better in the mix.

Using Filters, LP, HPF, BPF & BEF
Lo-Pass, Band Pass, Band Eliminate and Hi-Pass filters in the VS EQ section are very important things to work with in any mix. Usually, be default they are set to OFF, the "F" (Freq) @ 1.00k Hertz and the Q @ 0.71. If not then you can check it

out by clicking on the "OFF" and a small menu pops ups with Off, LPF, HPF, BPF & BEF options for setting the EQ graph to one of these choices. These are important for general purpose use, the HPF, BPF BEF & LPF. Low pass means just that. The graph will cut off the high frequencies so only the low frequencies pass through, hence Low Pass Filter. Band Pass cuts off the Hi and Low frequencies, Band Eliminate cuts only the middle and Hi Pass cuts off the low frequencies so only the Hi frequencies pass through.

These are use in conjunction with the "F" and "Q" knobs to set where the frequency cut off begins and how sharp or flat the curve of the cut off is. That way you can set the graph to cut off higher or lower than the default setting to match it better with what you are hearing on a track.

Using the LPF on your bass and kick will help to keep the bass and kick from bleeding over into the mids and mudding them up. You have to listen to the track by its self when setting these to really hear what's happening then with the mix to see how it sits in the mix.

Using the HPF on you cymbals, lead guitars, higher vocals etc can also help to keep the mids from sounding muddy.

The BPF can be used on instruments that are in the mids like rhythm guitars and other instruments but I would adjust it a bit more open than the default.

Using the BEF for finding bad frequencies such as hums and noises will help to clean up any problems in a signal and eliminate it. Also you can use it on a Bass or kick to carve out an area for one or the other to come out in a mix. The Bass and kick sit in the same are of frequencies and if the kick is being hidden behind the bass guitar then use this on the bass and see if you can place that dip in the area where the kick sits, allowing it to come though the mix.

These are brief descriptions of what these filters are and how to use them so research more about EQ in your VS manual and on line, read up on frequencies and where each instrument sits in the frequency range, and how others are using these filters.

Analyzer and Freqs

Using the ANALYZER on the UTILITY menu is another good tool for find out what frequency range an instrument or vocal is made up of. Click on UTILITY> Select Analyzer and it appears where the meters were on your HOME screen. The A, B, C, D stands for effects processor slots so pick an effects processor that’s not in used by checking the letter that corresponds then select the Track or Input for SOURCE ie TR1 or IN1. You should be able to figure it out easy enough. Play the track or if it’s an input play the instrument that’s connected to that input.

Stuff you can do to de-muddy a mix:

#1) HPF: Use it on EVERY TRACK! Let your ears be your guide, but here's a rough guide to get ya started:

- BAS - 40Hz
- GTR - 80Hz
- VOX - 120Hz
- OTHER - 100Hz

Karl Lakestone VSP

Here's a good link to start with about using EQ.
http://www.trinitysoundcompany.com/eq.html

Here is the bulk of the material from that web site…

Understanding EQ and its Effects on Signals

There are two areas of equalization that I want to cover. Those two areas are vocals and music. I'd like to discuss the different effects of frequencies within audio signals. What do certain frequencies do for sound and how we understand those sounds. Why are some sound harsh? Why do things sound muddy? Why can't I understand the vocals? I'll try and answer all of these question and hopefully bring some light to the voodoo world of EQ.

Vocals

Roughly speaking, the speech spectrum may be divided into three main frequency bands corresponding to the speech components known as fundamentals, vowels, and consonants.
Speech fundamentals occur over a fairly limited range between about 125Hz and 250Hz. The fundamental region is important in that it allows us to tell who is speaking, and its clear transmission is therefore essential as far as voice quality is concerned.
Vowels essentially contain the maximum energy and power of the voice, occurring over the range of 350Hz to 2000Hz. Consonants occurring over the range of 1500Hz to 4000Hz contain little energy but are essential to intelligibility.
For example, the frequency range from 63 to 500Hz carries 60% of the power of the voice and yet contributes only 5% to the intelligibility. The 500Hz to 1KHz region produces 35% of the intelligibility, while the range from 1 to 8KHz produces just 5% of the power but 60% of the intelligibility.
By rolling off the low frequencies and accentuating the range from 1 to 5KHz, the intelligibility and clarity can be improved.
Here are some of the effect EQ can have in regards to intelligibility. Boosting the low frequencies from 100 to 250Hz makes a vocal boomy or chesty. A cut in the 150 to 500Hz area will make it boxy, hollow, or tube like. Dips around 500 to 1Khz produce

hardness, while peaks about 1 and 3Khz produce a hard metallic nasal quality. Dips around 2 to 5KHz reduce intelligibility and make vocals woolly and lifeless. Peaks in the 4 to 10KHz produce sibilance and a gritty quality.

Effects of Equalization on Vocals

For the best control over any audio signal, fully parametric EQ's are the best way to go.

80 to 125	Sense of power in some outstanding bass singers.
160 to 250	Voice fundamentals
315 to 500	Important to voice quality
630 to 1K	Important for a natural sound. Too much boost in the 315 to 1K range produces a honky, telephone-like quality.
1.25 to 4K 5 to 8K	Accentuation of vocals

Important to vocal intelligibility. Too much boost between 2 and 4KHz can mask certain vocal sounds such as 'm', 'b', 'v'. Too much boost between 1 and 4KHz can produce 'listening fatigue'. Vocals can be highlighted at the 3KHz area and at the same time dipping the instruments at the same frequency.
Accentuation of vocals:
The range from 1.25 to 8K governs the clarity of vocals. Too much in the area of 5 to 16K can cause sibilance.

Instruments

Mic'ing instruments is an art ... and equalizers can often times be used to help an engineer get the sound he is looking for. Many instruments have complex sounds with radiating patterns that make it almost impossible to capture when close mic'ing. An equalizer can compensate for these imbalances by accenting some frequencies and rolling off others. The goal is to capture the sounds as natural as possible and use equalizers to straighten out any non-linear qualities to the tones.
Clarity of many instruments can be improved by boosting their harmonics. In fact, the ear in many cases actually fills in hard-to-hear fundamental notes of sounds, provided the

harmonics are clear. Drums are one instrument that can be effectively lifted and cleaned up simply by rolling off the bass giving way to more harmonic tones.
Here are a few ideas on what different frequencies do to sounds and their effects on our ears.

31Hz to 50Hz	These frequencies give music a sense of power. If over emphasized they can make things muddy and dull. Will also cloudy up some harmonic content.
80Hz to 125Hz	Too much in this area produces excessive 'boom'.
160Hz to 250Hz	This is the problem area of a lot of mixes. To much of this area can take away from the power of a mix but is still needed for warmth. 160Hz is a pet-peeve frequency of mine. Also, the fundamental of bass guitar and other bass instruments sit here.
300Hz to 500Hz	Fundamentals of string and percussion instruments.
400Hz to 1K	Fundamentals and harmonics of strings, keyboards and percussion. This is probably the most important area when trying to control or shape to a natural sound. The 'voice' of an instrument is in the mids. To much in this area can make instruments sound horn-like.
800Hz to 4K	This is a good range to accentuate instruments or warm them up. Too much in this area can produce 'listening fatigue'. Boosts in the 1K to 2K range can make instruments sound tinny.
4K to 10K	Accentuation of percussion, cymbals, and snare drum. Playing with 5K makes the overall sound more distant or transparent.
8K to 20K	This area is often what defines the quality of a recording or mix. This area can also help define depth and 'air' to mix. Too much can take away from the natural sense of a mix by becoming shrill and brittle.

Here are a few other pin point frequencies to start with for different instruments. In a live sound situation, I might event pre set the console's eq to these frequencies to help save time once the sound check is under way. These aren't the answers to everything... just a place to start at.

Kick Drum:

Besides the usual cuts in the 200Hz to 400 area, some tighter Q cuts at 160Hz, 800Hz and 1.3k may help. The point of these cuts makes for space for the fundamental tones of a bass guitar or stand up. I have also found a high pass filter at 50Hz will help tighten up

the kick along with giving your compressor a signal it can deal with musically. 5K to 7K for snap.

Snare Drum:

The snare drum is an instrument that can really be clouded by having too much low end. Frequencies under about 150Hz are really un-usable for modern mixing styles. I would suggest a high pass filter in this case. Most snares are out front enough so a few cuts might be all that is needed. I like to start with 400Hz, 800Hz, and some 1.3K. This are just frequencies to play with. Doesn't mean you will use all. If the snare is too transparent in the mix but I like the level it is at, a cut at 5K can give it a little more distance and that might mean a little boost at 10K to brighten it up.

High Hats:

High hats have very little low end information. I high pass at 200Hz can clean up a lot of un-usable mud in regards to mic bleed. The mid tones are the most important to a high hat. This will mean the 400Hz to 1K area but I've found the 600Hz to 800Hz area to be the most effective. To brighten up high hats, a shelving filter at 12.5K does nicely.

Toms and Floor Toms:

Again, the focus here is control. Most toms could use a cut in the 300Hz to 800Hz area. And there is nothing real usable under 100Hz for a tom... unless you are going for a special effect. Too much low end cloud up harmonics and the natural tones of the instrument. Think color not big low end.

Over Heads:

In my opinion, drum over heads are the most important mics on a drum kit. They are the ones that really define the sound of the drums. That also give the kit some ambience and space. These mics usually need a cut in the 400Hz area and can use a good rolling off at about 150Hz. Again, they are not used for power.... these mics 'are' the color of your drum sound. Roll off anything that will mask harmonic content or make your drums sound dull. Cuts at 800Hz can bring more focus to these mics and a little boost of a shelving filter at 12.5K can bring some air to the tones as well.

Bass Guitar:

Bass guitar puts out all the frequencies that you really don't want on every other instrument. The clarity of bass is defined a lot at 800Hz. Too much low end can mask the clarity of a bass line. I've heard other say that the best way to shape the bass tone is to roll off everything below 150Hz, mold the mids into the tone you are looking for, then slowly roll the low end back in until the power and body is there you are looking for. If the bass isn't defined enough, there is probably too much low end and not enough mid range clarity. Think of sounds in a linear fashion, like on a graph. If there is too much bass and no clarity, you would see a bump in the low end masking the top end. The use of EQ can fix those abnormalities.

Guitar/piano/ etc.:

These instruments all have fundamentals in the mid range. Rolling off low end that is not needed or usable is a good idea. Even if you feel you can't really hear the low end, it still is doing something to the mix. Low end on these instruments give what I call support. The tone is in the mids. 400Hz and 800Hz are usually a point of interest as are the upper mids or 1K to 5K. Anything above that just adds brightness. Remember to look at perspective though. Is a kick brighter than a vocal? Is a piano bright than a vocal? Is a cymbal brighter than a vocal?

In Closing

Equalizers are one of the most over looked and mis-used pieces of gear in the audio industry. By understanding equalizers better, an engineer can control and get the results he or she is looking for. The key to EQ'ing is knowing how to get the results you are looking for. Also, knowing if it's a mic character or mic placement problem. EQ can't fix everything. It can only change what signal it's working with. Equalizers are also a lot more effective taking away things in the signal than replacing what was never there. Another link to good info on EQing…
http://www.recordingwebsite.com/articles/eqprimer.php

ERASE SILENT PARTS **By Frank Griffith**

Once you are through recording all of your tracks you might have places in between vocals and lead guitar solos that you want to get rid of, erase them from the background to eliminate the extra room noise. A simple way to do this is to….

1) Left Click and hold the cursor at the beginning of the piece of track to erase…
2) Drag the mouse to the left, to the end of the piece to ERASE and then let go…
3) Place the mouse cursor in the highlighted area of the piece to erase…
4) Right Click and select ERASE from the drop-down menu.

To get a more precise edit point for placing the IN and OUT points, select the TRACK so it is highlighted then….

1) Place the time line on your IN point and PRESS the WAVE DISP button, check that your IN point is in between beats and not on a signal, a quiet spot, Press WAVE DISP to zoom back out…
2) Now we're on full screen, JOG the time line to the OUT point and PRESS the OUT button, the check it on the WAVE DISP again and back as above…
3) Click on TRACK> and select REGION ERASE and a window opens
4) Click on "F1 Sel Trk" and in the next window…
5) Place a check mark in the box next to the Track number you are ERASING from…
6) Now click "F5 OK" and answer YES to "REGION ERASE Sure?" it will display "Done."
7) To shut the REGION ERASE window click on "F6 EXIT" and you're done.
8) Click HOME to get out of the WAVE DISP display. To CLEAR out the edit flags HOLD the CLEAR button and PRESS the IN, OUT and TO buttons and the flags are gone.

If you had trouble jogging in small enough increments you can go to the TRACK TIME DISPLAY area of the HOME screen and with your mouse click on one of the 2 digits to move the yellow under-line from "h" to "m" to "s" to "f" to jog in hours, minutes, seconds or frames. Frames are good for the smallest increment. You can also PRESS on the left & right CURSOR buttons above the jog wheel to do the same. Another reason to erase the silent spots is to get rig of any noises the singer made or guitarist in between parts. If this leaves a void in the mix then record a whole track of the mic at

the same level the singer sang at and edit that in later to add space to the mix without the noise of the singer grunting, coughing or breathing. You would be surprised at what does get recorded between segments like this.

VS with External Effects Units from VSP By Karl & Others
All I want to do is record vocal tracks 3-4 thru my external effects and back into the 2480 on trks 7-8 using a wet and dry signal input. I want to use trks 23-24 for the effects and trks 3-4 (orig dry signal). Then rec them both to trks 7-8. So therefore I have the dry signal recorded with the wet signal on 7-8 trks.OK, try this....

Reply
You have dry tracks on 3/4, and your FX coming in on 23/24. You want to mix them to 7/8.

OK, first select Fader Bank TR1-16. Press and hold the Track Status button over Fader7 until the EZRouting screen is displayed, and all the buttons begin to blink. 7/8 don't blink, cause that's your chosen destination track pair.

Now, press the CH EDIT button over Track3. This connects Track3/4 to Track7/8.

Now, while the buttons still flash, select FaderBank IN17-24, and press the CH EDIT button over Fader23. Now, both Track3/4 AND Input23/24 are routed to Track 7/8. Exit the EZRouting screen.

That's it, you're there! No AUX busses required! Simply record on 7/8, dry volume on 3/4, wet volume on Input23/24.

Notice you are NOT actually recording the Wet signal by itself, and are NOT using any Track Mixer channels for the Wet signal.

More on External Effects
I want to route recorded tracks 1-8 (drums)out to a pair of dbx 160x comp/limiter. Via a pair of stereo buss's hit them fairly hard and then route back into a pair of tracks and tuck them underneath the original tracks. However getting a little confused here in terms of how to get the original tracks to a pair of buss's. Thanks

Reply By Karl
First step is to LINK a pair of AUX busses. Go to the MIXER->MASTER EDIT menu, and LINK AUX3&4, for example.

Now go to each of the 8 drum tracks, and create a mix that will feed the outboard gear, using the AUX3/4 SEND and PAN controls.

In the OUTPUT ROUTING area, drag the AUXA_LR_OUTPUT to the AUX3&4 buss. Connect the AUXA_LR outputs to your outboard gear. Remember that the AUX3/4 MASTER FADER will also control the mix going to the outboard gear.

Explained Again by Karl
You treat the OUTPUT OF THE EFFECT the same as any other input. Bring it in thru an input channel, either thru an analog or digital input. If all you want to do is have the XFX appear on the MIX bus, all you need is the MIX button turned on for whatever input channel(s) you have used. If you wish to print the FX to a track(s) for further processing, then you must record it, just like any other input (synth, etc.)

Now, getting the signal from the 2480 to the XFX kind of depends on what you are sending. If it's only a single track, you can use the DIRECT outs in the CH.EDIT screen. But if it's a group of tracks, you will need to use an AUX buss to sum the tracks and send them to the XFX. Either way, you connect one of the ANALOG OUTS to either the selected DIR or AUX buss.

By Karl one more time...
By default, AUXA and AUXB outputs (Output jacks 3, 4, 5, and 6) are routed to AUXBUSS1, 2, 3, and 4. Confusing.

So I go in to the EZ ROUTING screen, in the OUTPUT ASSIGN section, and connect AUXA to AUX3/4 and AUXB to AUX5/6. Much easier to understand.

OK, so now, on the kick drum channel, when you raise the AUX4 SEND, the kick goes out JACK4 in the back of the 2480. You can send as many thing as you wish out JACK4 at the same time by adding other tracks via their AUX4 SEND levels.

Bring the FX back into an input channel, just like you would a mic or synth. You can choose to print the FX return, or simply allow it to enter the mix via the INPUT channel.

<<<<<<<<<<<Threads & Info on cleaning, repairing and replacing faders>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
Searched VS2480 Forum, Past 5 years, "Faderboard" in Subject and Body.

Seunity on VSP…
http://www.vsplanet.com/ubbthreads/ubbthreads.php?ubb=showflat&Number=831954#Post831954

I've done the manual cleaning like suggested in earlier threads here.

Remove the slider knobs (!), turn the VS around and open the bottom plate. Unscrew and remove the faderboard carefully, paying attention to the three connections on the edge of the board; the wires are short so don't yank the board out too hard. This all is easy enough to do.

For the actual cleaning I used cotton swabs, Q-tips, anything small enough to get to the the tracks inside the fader housing. I used PRF 6-68 "dry" cleaning solvent for the first round and applied just a tiny dab of PRF 7-78 lubricant after that. You have to be careful to not leave any pieces of cotton etc. inside the housing while cleaning, this could just make things worse.

From about 10 sticky faders that I had, I was able to cure 8 like this. Not totally smooth movements, but not sticking that bad either.

Later on I went in the second time, trying to fix the two faders which were still acting up, but couldn't make any difference with further cleaning. There was not even any kind of dirt coming up this time around.

Worth to notice; the driver belts which actually move the faders will wear out eventually. I noticed several which were loose or had worn gearing, quaranteed to slip at some point. Unfortunately there seemed to be no way to tighten the belts to fix this.

When I finally got compressed air in spray can, I went in the 3rd time. This is what messed up the whole faderboard! All of a sudden I got several more faders which were all over the place, not moving much anymore or not getting into exact spot, slippin past or lagging behind etc. Based on these experiences, I would certainly warn against some procedures, like Frank already said.

In the end I contacted the Roland service here and found out that they won't sell you the whole faderboard. For that you'd have to have a broken board, not just the faders. What they will sell are the individual faders, of which there are two types; with longer and shorter housings. That means some soldering but I'm ready, as soon as they'll get the faders in.

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>
>>>>>>>>>>>>>>>>>>>>
Update on fader replacement.

I finally got the faders from the Roland service and did the job. Two types of faders, 8 and 9 pieces. There are total of 204 connections to be desoldered, 12 on each fader.

Desoldering went fast until I ran out of rosin braid and had to use no clean wick for the rest. All in all it took about 6 hours to take out the old faders and solder the new ones in.

When done I noticed something which is worth mentioning, since this might trouble others as well. While most of the new faders really snapped into their positions fast and easy, there were two which were still sticky, pretty much like they were before the replacement. Taking out the fader knobs I noticed that the shafts of those two were leaning pretty close to the edge of the panel. So when the knobs were in place, they would rub against the panel, thus making them sticky! All the other shafts were more or less in the middle of their panel cutouts, all fine there.

I went back in to check my work, but all the faders were set pretty much level. So what I did is, I desoldered those sticky faders and tilted them a little bit so that I got the shafts to line up more in the middle. Reassembled, everything worked fine.

I don't know if the front panel is offset a little from the fader board or what it is, but since there are so many parts and boards piled up in the box, there certainly is a chance of having some of them misaligned. Even a little bit can make a difference, at least with faders, it seems.

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<Replacing the faderboard>>
http://www.vsplanet.com/ubbthreads/ubbthreads.php?ubb=showflat&Board=16&Number=436070&Searchpage=1&Main=46858&Words=faderboard&topic=0&Search=true#Post436070

How much did you pay for thr **faderboard** its self?
>>>>>>>>
V Jo Go "Crystal Studios"....
It took me an hour >> just to study the diagram, of all the screws to remove (thanks to FRANK) I figured I could complete the job in 6 hours, and then not sure it would be operational...I paid nearly $500 with shipping ...
>>>>>>>
Jim Sharp......

Frank, I paid $289 from bmp music.com There was no shipping charge. The new faders work fine. Now I'm cleaning up the hard drives on both of my 2480s and tomorrow I'll switch over the 3 card and put the one with the new faders as my primary unit. It's the one with the DVD burner. The one I've had to use over the summer has only an external CD burner.
>>>>>>>
C Jo Go...
I think I may try the next time ---there are maybe 30 screws ~~ with 12 varities ....but there is just one ribbon and an "easy to align into place" fader ? Should be able to attempt that fete >> will give it a try ~~ hope to obtain another 2 years, on this board.

<<<<<Thread on Sticky Faders and Cleaning them>>>>>
http://www.vsplanet.com/ubbthreads/ubbthreads.php?ubb=showflat&Board=16&Number=408966&Searchpage=1&Main=44111&Words=faderboard&topic=0&Search=true#Post408966
AND another...
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<Where to get the fader board for $300?>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
http://www.vsplanet.com/ubbthreads/ubbthreads.php?ubb=showflat&Board=16&Number=386405&Searchpage=1&Main=41912&Words=faderboard&topic=0&Search=true#Post386405
>>>>>>>
Slobbermonster....
CRAP DUDE just order the fader board for $300 from Roland and swap the whole board, faders and all.

The only thing attached to the board is a ribbon cable. It's so simple an operation that anyone who can run a screw driver can do it. No soldering and no sweat. And it only takes about an hour.

Do the guys "fixing" yours provide any vaseline?

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<Fader Calibration>>
>>>>>>
Poplikecrazy....
Had this same problem Larry, luckily doing a fader calibration at startup solved the problem in my case " One thing to try...calibration. When you boot it up hold down PAGE + F1. Then select Fader Test. You'll see all the faders center, then go up and down one at a time. "...heres a link to previous post http://www.vsplanet.com/cgi-bin/ubb/ultimatebb.cgi?ubb=get_topic;f=16;t=014078 (link does not work)

This should be enough info to help.
Frank.

INSERT EFFECTS By Frank Griffith

PRESS IN 1-16/Solo button, above the master red fader. Now your faders are set for INPUTS. If you are adding an EFFECT on INPUT #1 then PRESS the CH-Edit button above fader #1. The page with EQ and Compression graphs on it will fill the screen. Below the Compression graph is where you will find the INSERT EFFECT FX1 thru FX8. If you are using the EFFECTS Processor #1, then click on FX1 once. (It has 4 positions) You want the first. See NOTE below for more on these buttons & positions.

Now Patch in your EFFECT by clicking on EFFECT> then EFFECT1> a window opens, select the "F" button for PATCH, now in this window, highlight the effects patch you want to use and click the "F" button for SELECT> then EXIT> twice.

Now click HOME and above the red master fader, PRESS IN 17-24/AUX MST and make sure all AUX FADERS are set to 0db, then PRESS TR 17-24/FX RTN button and make sure all of the FX RTN faders are set to 0db(especially the one you are using, fader FX1 for EFFECT1).

Now, when you record INPUT number one to any TRACK, the EFFECT Patch you select to use, like reverb or a vocal multi, will be printed to the TRACK. How do you route and input? Click on EZ Routing> Routing View> and on the left hand side of the screen find INPUT MIXER with 1-24. INPUT one can be clicked on, it'll turn blue and the other end of it can be dragged to and of the RECORDING TRACKs 1-24 below the INPUT MIXER. By default INPUT 1 is connect to RECORDING TRACK 1, 2 to 2, 3 to 3 etc. Once you connect you input where you ant it click HOME and arm your track to record and record the INSERT EFFECT with your tracks now.

Make sure the effect you are inserting has not been LOOPED in the EZ-Routing screen. Go to EZ-Routing> Routing View> and under “TRACK ASSIGN” you see the FX RTN Block with 1 thru 8 they match EFFECTS 1 thru 8, disconnect the FX RTN that matches that effect’s number you are inserting if it’s connected to the destination track. For more on this and LOOPED EFFECTS see “VS EFFECTS.doc.”

NOTE: The two BLUE BARS to the right of the YELLOW effects button, you click on to turn the effect on, can be clicked on and held, then you can push the mouse up and down to adjust the SEND or the RETURN LEVELS

of the effect. Also, below the YELLOW buttons where the patch number of the effect is displayed, you can click on that to open the effect's window for patching and editing effects. Clicking on the YELLOW FX buttons runs it thru 4 positions Ins., InsL., InsR. and InsS then to OFF.

Ins. The channel's signal is processed by both sides of the stereo effect.
InsL. The channel's signal is processed by the Left side only.
InsR. The channel's signal is processed by the Right side only.
InsS. The channel's signal is processed by the Left side and then the Right side. I use the first setting for a full stereo effect sound. Splitting the effect up into Left and then Right allows you to use the same insert effect on a left track and then on a second Right track.
*See VS manual for list of which are Insert vs. Looped effects and when and why to use them. Mainly, reverbs, choruses and delays work best LOOPED. To use one INSERT Effect on 2 different tracks you have to select the InsL position on the effect for one track and InsR on the effect for the other track. This way you can setup all 8 Effects to use 2 Mono INSERT Effects in each instance for a total of 16 INSERT Effects.

VS Install HD in VS2480CD
First, you need to download the "Converting VS2480CD to DVD" PDF from this link...
http://www.rolandvs2480.net/VS2480CD%20to%20vs2480DVD%20Conversion/Convert%20your%202480CD%20to%20a%202480DVD.htm
The hard drive and the CD burner are in the same caddy inside the VS2480CD model VS. This PDF will guide you step by step thru the process of removing the VS CD models back cover and caddy all with detail pictures and info.

Briefly:
1) Flip the VS over onto a pillow on top of a table and remove all of the screws from the back cover and use an egg carton to keep the different size and threaded screws in, you will need a medium and very small phillips head screw driver.
2) Once inside the VS locate the caddy that has the hard drive and burner mounted in it and remove the screws holding the caddy in the VS.
3) Unplug the data and power ribbons from the caddy and work on the caddy separately so you do not risk dropping any screws inside the VS.
4) Remove the old hard drive from the caddy and replace it with the new hard drive. Make sure to set the pin to master just like the old drive. Some times it can be hard to get the new hard drive in place in the caddy. Also, do not strip the small screws and only tighten them hand tight.
5) Now plug in the ribbons and mount the caddy back in the VS, put on the back cover and screws and flip the VS over to format the hard drive.

FORMAT A NEW HARD DRIVE
Once it's installed, turn the VS on and watch the small 3" x 4" LCD on the VS and answer the prompts using the ENTER/EXIT buttons, "F" buttons under the screen and the jog wheel. You can do a "Quick" format with a new hard drive but it's recommended to do the following:

First you'll see "Formatted Drive Not Found, Force Initialize?
Press ENTER for YES then you have to Select Drive, IDE 0 and then Partition size 10GB, Check "Physical Format" and surface scan "ON". I think you use the jog wheel to highlight items and the ENTER to select and the "F" buttons to page through the menus. It becomes logical as you do it and finally you select "OK" and it'll ask you twice if you want to do this, answer "YES." These instructions are brief but I added them from memory. It'll take about 6 _ hours for 80GB and double that for 120GB.

Brand hard drives and Specs.
Just about any brand name should work with the right specs.
Seagate Barracuda is one of the best, Maxtor, Western Digital, Hitachi Deskstar, IBMs etc.
Specs: 40, 80, 120GB hard drive, 7200RPM, 8MB Cache (2MB & 16MB has worked), ATA/100 or 133 interface and this is important, less than 10ms average seek times. So in a nut shell use a hard drive with these specs.
*7200RPM, 8MB Cache, ATA/100 or 133 with less than 10ms average seek times.
Good luck, Frank.

VS LEVEL SETTINGS From Post On VS-Planet

……..

Question: What meters do I watch during recording???

……

Reply: I set the INPUT and TRACK faders to 0db then I use the SENS knob and PAD to set my levels and start with the INPUT meters by clicking on the "F" INPUT then "F" IN MIX" then once that's set I click on the "F" TR MIX" and then record. Try to shoot for -12db on the meters.

The Track has to be armed to get a meter reading. I read some where that you should use the PAD and keep the SENS as low as possible when setting the levels. Then you can use the PRE and POST buttons to switch back and forth from INPUT and TRACK Meters to make sure you're no going over any where. Leave it on POST for recording and mixing.

……

Reply: look at your eq/dyn screen under the compressor, is the auto gain button on? if so that is what's pushing your levels up on the track mixer. Most folks turn the auto gain off and use the manual gain "knob" right under the button.
Always watch your input meters when your tracking, you don't want those clipping.
As far as your guitar re-amping goes, look at the eq/dyn screen again for that channel and there is a "mix" button on the right side of the screen, I think its above the "virtual" fader. That button will take that track out of the playback mix.

…….

Reply: yes but
your compressor is after the input peak light and before the recorder so yes you have to watch both meters.

……..

Reply: Also remember that if you use compression on the input you're stuck with it because it will be printed to your track.
And Mike's warning about the dynamics can really get you in a mess if you don't watch it (check meters post and pre often).
I always adjust comp for bass on the track channel while I'm tracking (if I use it) to hear what it would sound like, but it doesn't get recorded with the track so you can change it later if you choose.

Frank's got the right idea here, keep the input faders at 0db and adjust the pre (sens) levels.
Set the meters to ANALOG INPUT so you'll know what's actually coming in (use INPUT MIXER if altering input channels). Use the pads

as needed.
The track levels are basically for monitoring purposes while you're tracking. Think of the 2480 in separate sections;
Use the pre's across the top with the input mixer at unity gain (0db) when tracking.

INPUT MIXER to apply effects, EQ and dynamics while tracking (if you want to, but remember you're stuck with whatever you do here).

TRACK MIXER to apply effects, EQ, dynamics and level adjustments for monitoring while tracking and final mixing.
……..

Originally posted by What does this button do?:
When I'm recording, which level do I need to pay the most attention to?

Reply: There's a lot of info in these replies, but it's spread across three or four of them.

Assuming you're using ONLY the 2480, things to remember are in the order of the 2480's internal signal chain. Each stage and process must stay below the clipping point, and the addition of every change to the original signal should slightly change those levels at the next tier.

Each stage is critical, starting with the INPUT.
If analog, you must adjust the INPUT using the SENS knob while viewing the INPUT meters. Keep the signal well below clipping and make sure you know if the clip indicator is set at -6dB, -3dB, or 0dB.

Next, you'll need to set the INPUT MIXER levels using the fader sliders. This is also the level adjustment when using a digital source. View this level/adjustment by selecting the INPUT MIXER and the POST level position. This will ensure the actual levels being recorded are not clipping. **The INPUT MIXER in POST is what's being recorded.**

You can flip back and forth between PRE and POST (without touching the INPUT MIXER faders) to see if you have any changes in levels. However, this can be difficult to do with constantly changing source levels. But, it can also help to identify if you have dynamics, EQ, or effects accidentally (or intentionally) turned on. Once they're printed to the track, you'll have to live with them.

Don't be fooled by the audio output of the TRACK MIXER and faders in TRACK mode. These sliders change NOTHING in regards to what's being recorded. They only modify the audio output that your hear.

Lastly, just remember that it's easy to overlook unwanted items in the signal chain, and double check your settings with use of the PRE and POST meters, as well as your ears.

…….

What you have is an INPUT MIXER and a TRACK MIXER and the signal path is pretty much the same for both.

INPUT to SEN+Pad to IN Meter>
TRACK to Phrase parameter > BOTH FOLLOW THE PATH OF…….
DYN Meter IN> Dynamics Block> Level> DYN Meter OUT> EFX Send Inserts 1 thru 8> EFX RTN> ATT knob> EQ Meter IN> EQ Block>EQ Meter OUT> Aux Sends Pres 1 thru 8> Pre Fader> Post Fader> Aux Send Post 1 thru 8.

Setting Levels for Mastering
With the 2 card, in the MTK MixDown patch, P231, I never use the soft clip. I use the EQ, compression, and the limiter on that patch if needed.
Here's what I do to get the levels hot at the end.
First of all make sure none of your track levels are going over 0db, bring your track levels down so that hottest track is below 0db and you have some headroom, it's best that your not slamming the master buss, and never have your master fader below 0db. You will see where the master levels are at, I try to get the master level peaks as close to 0db even if that means raising the master fader, (this is of course with the MTK inserted), I use the limiter set at -1db to get the occasional spike.
So far no problems getting my CD's to sound pretty close to commercial, but you have to realize they really slam these new CD's with compression to get them loud, I'd rather have a great sounding CD than one that's loud.
Pete on VSPlanet

VS8F-3 card & Plug-ins for Mastering.
I have the VS8F-3 card and use the same settings in it. It seems to work much better than the VS8F-2 card’s MixDown patch. All of the MTKs on the 3card sound better and do a better job of mastering, IMO. Also, T-Racks for the PC has many Presets that sound good and really add that market CD compression some like. I hear that the VS

version of T-Racks can do the same for you. Buying the VS8F-3 card and plug-ins like T-Racks and the UA Bundle can really add a lot of options for mastering as well as better recordings of individual tracks. The MTKs on the 3 card also fill up your screen with all of the parameters so that it is much easier to understand and use. Frank.

Recording a click track

Go to UTILITY menu> Select the Gen/OSC screen and turn it on, then go to EZ Routing> Routing View> and route the output of the GEN/OSC to a free tracks and record enable, arm, that track.
Page 288 in the VS POWER book. Frank.

VS MASTERING CDs FOR THE NEWBEE

Mastering should be the process of just adding the icing on the cake, polishing up the mastered mixes. Making them sound better and putting them in the best listening order on the CD. You could take your mixes to a mastering house but in today's world with this technology at you finger tips, you can do a decent job as well. You just need some simple guidance, IMO. Also see my "VS MTK USE .doc" using the VS's Mastering Tool Kits to get the most out of your mixes.

*Before getting to the mastering stage, it's very important that you record all of your tracks at consistent levels so songs are at consistent levels in the mastering stage. I always setup my VS with all faders at 0db and use only the SENS/TRIM knobs and PADs to set my recording levels so that none are below -12db and the peaks go no higher than -4db. When I get to the mastering stage in the VS I like to use the "Mixdown" patch in the MTK to master my stereo pair of tracks. Learn how to use the MTKs and you can get a good and loud enough CD out of the VS.

*You need to make sure you have a treated room to mix your songs in and good set of flat frequency response monitors. Check these sites for info on treating your room. www.auralexuniversity.com and www.acoustics101.com . For monitors in the $1,000 range check out Dynaudio BM5A's and Adams A7's. Now onto mastering the whole CD project.

*Trim al1 of your mastered tracks. Make sure the fade outs are good and don't have dead air space at the beginning or end of your songs. Don't have a second of silence before the track begins or at the end. The VS can add that silence between each track automatically using TAO or if you use DAO and have to set the track markers yourself, set those 2 seconds apart and have the track start playing in a split second, 10 or so frames of a second before the song begins!

*Pacing the CD's track order. You need to organize the tracks in a good order to set a good flow from track to track. Make a rough CD and listen to the songs in random order, see what songs sound best together. Arrange the keys of the songs in ascending or descending order and see what they sound like. Try not to have 2 songs in the same key together. Some songs may sound good in pairs so consider putting them together or even cross-fading from one to the next.

*Decide if you want the song order to build or taper off. Do you want the CD to start off slow and build or to build excitement at the start with fast tempo songs and get faster with each song after? You could then back off with slower tempos to end on a calmer tempo. It's all up to you and what sounds best with your songs.

*Always lead off with your best songs, especially if this is to be used as a demo CD to shop around. If you don't get their attention with the first song and hook, you have lost them, IMO. Also, keep your songs short, 2:30 to 4:00 is a good length. My motto is always leave them wanting more!

* You can normalize all of your songs if you want using NORMALIZE in the VS or in some PC programs but it's important to make sure all of your songs on your CD can be listened to with out having to adjust the volume knob of the player. Master them all at a consistent level. If a softer song doesn't sound loud enough and you can't get the volume up, then use dynamics to help it to sound louder. Add some compression to the Mastered V-Tracks if needed and re-master.

*Check your CD's volume levels by comparing them with market CDs. Pick a market CD in the same style of music your style is and see if your CD is in the same volume range. If yours is louder that's OK but if your CD's over all volume is lower then you will want to go back and re-master them with the MTKs. Some times it's best to burn the first mastered song to CD and check it with a market CD before mastering them all.

*If some of these tips don't work for you, no problem, just use them as guidelines and do the best you can. Remember, less is more. Get your tracks right in the mix so you don't have to try and fix it in the mastering stage.

"OK, here's how to get you Mix to CD...I'll assume you have a VGA monitor....

Go to CD-RW MASTERING->MASTERING ROOM menu item. The "Mastering Room" is displayed.

Click the Mastering Room OFF button to ON.

Change the STATUS to RECORD.

Set CDR REC MODE to ON.

Select the VTRACK PAIR on which you wish to record.

Set AUTO MARKER to ON (if desired).

Set the AFTER REC to "to Last Phrs:4s".

If desired, and an FX engine is available, you may insert an MTK patch in the Mastering Room.

That's the setup. Now run your mix while RECORDING in the Mastering Room. Place the Mastering Room in PLAY mode after recording.

This method produces 16-bit CDR-ready tracks. There are variations of this method for other purposes."

then he came back later and answered;

"OK, one error on kirk's part....the MasterPair is the same VTrack# on both 23 and 24. Initially it is set to VTrack23/24.16. You can change the VTrack number to 15, but it will effect both Tracks 23 & 24. It's like linking stereo tracks, the VTrack# is the same for both. OK? Good.

Now, the way I detailed produces 16-bit audio. BUT, if you leave the CDR MODE button OFF, the Master Tracks are created in the native format of the project (24 bit!). Just like any other stereo pair. In fact, you can exit the Mastering Room, select VTracks23/24.16 (or whatever), and play the mastered mix as a regular stereo pair.

Now, hopefully, you have saved that mix as a SCENE. Cause now that it is mixed, you no longer NEED those FX to be what they were. You can un-assign all the FX, and invoke an MTK patch for the Mastering tracks/24.16 through the MTK, with CDR MODE ON, recording them to VTracks23/24.15!!!!

I hope you followed all this. It's a 2-step process. MASTER your MIX in 24-bit mode with full FX. Then, "MASTER" that stereo mix thru the MTK to create a "MASTERED" 16-bit CDR version."

.....the mtk patches on the vs3 really give it a different overall sound. i unassigned the effects and saved 3 scenes using different mtk patches but some of them seem to add distortion. i'm going to be a better writer than engineer until i get better recording techniques.
.....same thing everyday here about this time. bad storm and lightning. gotta unplug the puter till it passes. later..... kib

By Karl Lakestone on VSP

MASTERING TRACKS & BURNING TO CD USING TAO

At this stage of the process we want to create a stereo mix of our Project/Song so we can later, burn them to a Master CD-R or RW. Some like to use CD-R Mode but that turns your stereo pairs into 16bit masters that you cannot listen to until you burn them to a disk or import them to a CDR Mode project. I was taught not to use CD-R Mode so the mastered pairs stay in 24bit so that I can then listen to my final mixed pairs before burning them TAO (Track At Once) to disk. Now for mastering, if you want to use an MTK (Mastering Tool Kit) then patch that into an effects processor now, it will use up both sides of the effects process, one full card. Then we begin with mastering your mix. Leave your meters on "F3 TR MIX" for now at the bottom of the HOME screen, if you do not see this click on the page button on the right hand side of the task bar.

Go to CD-RW/Mastering> Mastering ROOM> now the METERS area on the HOME screen becomes the Mastering room. Click Mastering Room to "ON", it'll turn yellow. Your tracks will be grayed out. Click the STATUS button from GREEN/PLAY to RED/Record and the color comes back to your tracks.

Now, in the V.TRACK window you should see V-Tracks 23/24-16. That's the pair of V-Tracks you are recording this song's mix too in stereo. (You can Click on 23/24-16 if you want to select another pair of V-Tracks to record too if these have a previous mastered pair on them. If this is your first time then leave it as is, 23/24-16 is the default.) It's important to make sure you know what V-Tracks you are using here, there are 16 pairs of 23/24.

If you have an MTK (Mastering Tool Kit) patched into an EFFECT like EFFECT1 then click on FX1 to turn it yellow and add that MTK to the mix. Click nothing else! No Auto Marker or CD-R Mode. After Rec. should read, "to ZERO" as default.

Now press the PLAY button and set your Master Levels to 0db or slightly under, watch you master meters so they do not go over to 0db. Once your levels are set press STOP and cue up your tracks where you want the recording to begin. (You can also edit you MTK here as well. Bring up the EFFECT that has the MTK patched into it and click on EDIT and adjust the parameters while your master tracks play). I usually have a LOCATOR button setup to this point and press that locator number to go back to. (To use a LOCATOR just place the TIME LINE where you want it and press

one of the 0 thru 9 buttons. It will light up and any time you need to jump to this point just press it again. To clear it, hold CLEAR and press it again.)

Now press RECORD & PLAY and MIX your song live, watch your master meters. (*If you need to see your TRACK METERS then click "F6 EXIT" at the bottom of the screen to EXIT the mastering room and watch your track mix meters. Remember, we left them on "F3 TR MIX" at the beginning. Before the end of the song you can click on CD-RW Mastering> Mastering Room to bring the Mastering Room back up at any time while recording your mix.) Now fade out at the end of the mix using the RED MASTER FADER and press STOP.

Now press the ZERO/Back button, bring up the Master RED Fader to Unity/0db, click on the mastering room's STATUS button to GREEN/PLAY and press the PLAY button to hear what you recorded. The tracks should be GRAYED out again and music playing. If you don't like the mix PRESS UNDO and you'll see "Master Rec" in the small window, PRESS ENTER. Now do the MIX over.

You can also open the effects and select a different MTK patch if you want while in the Mastering Room. *If you have the mastering Room "ON" and STATUS green to PLAY with the tracks GRAYED out, you won't hear them if you press PLAY on the VS. You can either turn the Mastering Room "OFF" or click STATUS red to REC to PLAY the un mastered tracks.

If you're done, then you can leave the Mastering Room as is and move on to the next Project/Song or begin the burning process. I usually leave the Mastering Room as is so I can jot down the Master V-Tracks numbers during the burning process and keep track of which pairs I used on each Master CD-R or RW. I always hear something wrong with one of my songs and have to re-master. Sometimes you can do this 3 or 4 times before you're satisfied with your final mixes.

BURN TO CD

To burn these Projects/Songs to CD, be at this stage in the Mastering Room, Mastering Room ON and STATUS Play. That's why I left mine that way in the last stage of mastering my Projects/Songs. The Mastering Room defaults to 23/24-16 after every burn so make sure you select the right 23/24-V-tracks to burn to disk, in the next window.

Selecting the V-Tracks in the CD-R Write window, you have the LEFT side of the pair on top with the RIGHT side of the pair underneath the LEFT. I always click L-Click on the LEFT side pair to adjust the V-Tracks because the RIGT side will follow suit with the left. If you adjust the RIGHT side, the LEFT will not move and you could wind up with a song on the left speaker and a different one on the right! It's happened to me so make sure you have the right, LEFT & RIGHT V-Tracks!

Click CD-RW Mastering> select CD-WRITE, store current? Click "YES" and the INSERT a blank CD-RW or CD-R. The CD-R WRITE window will open. Make sure your V-Tracks 23/24-16 are shown in the L-Ch & R-Ch windows, (Check the window to be sure the right, Left and Right 23/24-V-Tracks are selected here.)

Select "FINALIZE" to "OFF", "WRITE METHOD" to (TAO)Track At Once, "SPEED" to MAX and click "OK" to burn. NOTE! If you do not have other Master Tracks in other projects to add to this CD then click "FINALIZE" to "ON". If you do have more leave it "OFF" until the last song's Master Tracks are ready to burn. This will close the CD so you can play it in a CD Player. Then click "YES", "ENTER" and "YES" to burn.

If you forget to turn "FINALIZE" "ON", on the last song's Master Tracks to the CD, then stick it back in and select "FINALIZE" to "OnlyFin." For finalizing ONLY. Now it's ready for playing and copying with PCs to be played in stereos. Also, a message comes up asking you if you want to "Write Another CD" and you answer "NO." This happens after burning a TAO song to disc. What it's asking is if you have another CD you want to write this same song to besides the one you are working on. If you are burning only one song to disc then follow these steps and "Finalize" the CD.

DIGITAL COPY PROTECT

To lock and protect the Master Song CDs you burn go to UTILITY> Project Parameter> and Turn "Digital Copy Protect" ON. This will protect your CD so that others can not RIP songs off of your CD using Nero, Roxio, Windows Media Player etc.

NOTE: If you want to record your Master Tracks using CD-R Mode and at 16bit you can use the VS manual to find out more about it. It makes your mastered pairs 16bit, 44.1k so you have to create a new empty CD-R Mode project and IMPORT the mastered pairs into that CD-R mode project from

the other project to burn them to disc in .cda format. The IMPORTING process is explained in detail in “VS MST DAO.doc.” Your 16bit CD-R Mode mastered pairs will not playback in a MTP, 44.1k , 24bit project, that’s why I keep them 24bit.You can also use the mastering room to create sub-mixes and use Track Exchange to move the sub mix to new tracks in the project. See my “VS SUB MIX.doc” for more on this.

Mastering 24bit 96k Projects

It's a work around just using the 2480 for sample rate conversion.

Let's say you have a beautiful 12 track 24 bit 96K mix and want to burn it to CD. Simply mix down to the mastering room with CD-R Mode=off. Then perform a Track Export of those two tracks. This will create a stereo 24 bit 96K .wav File on CD-R or CD-RW.

Then create a new project in CDR mode, 16 bit 44.1k, and use .wav import to grab the mix. The 2480 automatically converts the sample rate to match the new project!

This is also a great way to get from one recording mode to another, MTP to MT1 etc.

By Laura Tyson

MASTER DAO **By Frank Griffith**

Master CD "Disc At Once", 24bit When songs are mastered without CD-R Mode, one song per project do this!

First create a new EMPTY or MTP 24bit Project with the Name being the name of the CD. Once this is done it's time to use the TRACK IMPORT feature to IMPORT all of the Mastered V-Tracks from all of the SONGS/PROJECTS that are to be on this CD.

NOTE: If your mastered pairs are CDR Mode with Auto-marker then the New Master Project must be CDR Mode 16bit.

With the NEW Master Project Open

1) Click on TRACK> select TRACK IMPORT, a window opens with a list of all of your songs on your hard drive on that partition.
2) Now Select the first song to go on the CD, a rectangular box will surround it,
3) Click "F5 Select" to get to that song's mastered V-Tracks, a new TRACK IMPORT window will open. Notice the track's title is there and two areas, SOURCE → and Destination.
4) In the SOURCE window click on the scroll bar's UP and DOWN arrows to find the Mastered pair of V-Tracks. Make sure the first song's LEFT V-Track is selected and appears in the small rectangular window under SOURCE. We can only Import one side at a time. The RIGHT V-Track will have to be done by it self next. So…select "23-16:V. T23-16" first! "24-16:V.T24-16 next time around.
5) Next, we have to select the DESTINATION track to send the SOURCE V-Track too. In the DESTINATION window, make sure that "1L-1:V.T 1-1" is selected and appears in the Destination window. It should be there this first step. If not, use the UP and DOWN scroll arrows to select it. Clicking on them moves it 1 track's full 16 V-Tracks at once.
6) Now click the "F5 OK" button and answer "Yes" to Are you Sure and "YES" to Store Current Project. A progress window will appear. When done, move on.
7) Now Track# 1 has the Left track of the song IMPORTED to it. Click TRACK> TRACK NAME> and select "F1 NAME" and name it the title of the Song. Click "F5 OK" and then click "F5 EXIT" NOW……REPEAT STEPS 1 thru 7. This time IMPORT the R side V-Tracks to TRACK 2 in this project, then LEFT then RIGHT etc.

Once you have IMPORTED all of the SONGS LEFT & RIGHT V-Tracks, one at a time, into this project we need to line them all up on the same pair of tracks. We will use Tracks 1 & 2. To make it easier to move them we will do it in pairs so let's go to the CH-Edit page of each odd number pair of each song.

1) PRESS the CH-Edit button of TRACK #1 and click on "CH LINK", it should turn yellow. It's below the ATT knob on the left-hand side of the screen. Now PRESS the CH-Edit button of TRACK #3 and click it's "CH LINK" button on, then repeat for TRACKS #5's & #7's etc. Once they are all linked, we need to move the LINKED PAIRS of all SONGS to TRACKS 1 & 2.
2) Click HOME and now PRESS the ZERO button. To perform a REGION MOVE,
3) PRESS the IN button, now JOG to the END of the second song on tracks 3 & 4, position the RED time line at the END and PRESS the OUT button
4) Now lets position the RED time line 2 seconds PAST the first song on TRACKS 1 & 2 and PRESS the TO button plus, press LOCATOR # 1. This will send the BEGINNING of the SONG on 3 & 4, 2 seconds AFTER the END of the second song on TRACKS 3 & 4. Once all edit points and the first locator button is set,
5) Click TRACK>, at the top of the screen, and select REGION MOVE> , the REGION MOVE window opens…
6) Click "F1 Sel Trk" to select the TRACKS to move, in this window select TRACKS 3 & 4, since they are linked, placing a check mark in the odd number, automatically check marks the even one. We are moving TRACKS 3 & 4 to TRACKS 1 & 2.
7) Now, with the JOG wheel dial in TRACKS 1 & 2, just turn in counter-clock-wise till it no longer changes. That will be TRACKS 1 & 2's first V-Tracks where the FIRST song is. When ready click on "F5 OK" and answer "YES" to the prompts.
8) This will MOVE the SECOND song on TRACKS 3 & 4 to 2 seconds after the END of TRACKS 1 & 2. Now you need to repeat steps 1 thru 7 for the rest of the songs. Send the THIRD song on Tracks 5 & 6 to 2 seconds PAST the MOVED second song that was on TRACKS 3 & 4 but now on TRACKS 1 & 2.

And so on and so on. *You will be pressing IN, OUT, TO & the next LOCATOR not lit up, on each song's pair of tracks.

Once all of your SONG'S LINKED TRACKS are REGION MOVED to TRACKS 1 & 2 we need to use the LOCATORS you placed, with each SONG'S press of the TO button, to place our CD track markers so players can find each individual track on the disk. The first song on TRACKS 1 & 2 does not need one, it will be automatically placed by the CD-R Write process. Now…..

1) PRESS LOCATOR #1 (for the beginning of song #2) , Now set TIME on frame, just click on the "f" for frames under the track time display, now turn the JOG wheel counter clockwise one click, this will give you 10 frames of space before the song for the CD-R track marker to work. Too close to the beginning of the song and it may cause a popping noise on the CD. Now, HOLD down the CD-RW button and PRESS the TAP button, a BLUE down arrow will appear above the tracks.
2) PRESS LOCATOR #2 (for the beginning of song #3), JOG one click back and HOLD the CD-RW button down and PRESS the TAP button, repeat this process until all of the songs have a BLUE CD-RW marker at their beginnings. Once they are all done we can MASTER the CD.

MASTER THESE SONGS TO CD

1) Click on CD-RW MASTERING> and select CD-R WRITE, answer YES to Store current Project, you will see NOW WORKING……..,
2) INSERT a BLANK CD-R in to the CD bay, the CD –R Write window will open
3) Select TRACKS 1 & 2 in the L-Ch SOURCE TRACK & the R-Ch SOURCE TRACK area,
4) Under FINALIZE, I select ON with a check mark, I'm told it's not necessary but to be safe I do anyway,
5) Under METHOD Of WRITE, select "Disc At Once"
6) Under SPEED, select MAX and click
7) OK….Audio CD Write? Answer "YES", License agreement? Answer "YES" etc.. and you will see a progress window "MAKE IMAGE." It took about 15 minutes for my 8 songs to go thru this step then it changes to "CD Write DAO" for a couple more and EJECTS the CD. Done!

Doing my non-CD-R Mode Mastered V-Tracks with DAO (Disc At Once) seemed to take just as long, if not longer, than doing them TAO (Track At Once). CD-R Mode knocks them down to 16 bit also. Mastering them this way keeps them at 24 bit until they hit CD-R Write window, then the CD-Write method turns them into 16bit CD Audio. If you were to transfer them to PC thru an RPC-1 card or other audio cards, they can be kept at 24bit in PC aps like Sonar, Cubase and Wave Lab. Total process took about 50 minutes.

Karl's Project Split and Combine process basics.
You want to create 24bit Stereo Mixes of each song. This mix should be on it's own VTrack (naturally).

In each project, perform a PROJECT SPLIT of the 24bit Stereo Mix only. This yields one project with only the stereo mix per song.

In each of these projects, move the Stereo Mix to the same virtual Track Pair, at ZERO. All these files must be on the same partition.

Open the project that is the song you want to be first on the CD. Select PROJECT->LIST from the Menu. MARK both the current project, and the project that is the second song, and choose COMBINE (F4 on page2). This adds the second song to the first.

Repeat this until all the songs are in one project. You can then master the project as a CD.

Master Fade-Out Auto-mixing Step-by-Step: By Karl Lakestone on VSP

- Hold SHIFT and press AUTOMIX. In the AUTOMIX setup dialog, unclick PAN, and set the MASTER to RECORD. All other items should be at IGNORE status. Close this dialog.
- Go to the start of your song, or a second before the start. Hold SHIFT and press the Tr17-24 FX RET/MASTER EDIT button. Make sure the Master Fader is set to Unity. Close the Master Edit dialog.
- Hold REC and press AUTOMIX to enable Auto-mix Recording. Hold AUTOMIX and press TAP to take a SNAPSHOT of the Master fader at Unity to start the song.
- Move to where you want the Fade-Out to begin. Press IN and take another SNAPSHOT (both needed for the Gradation process)
- Move to where you want the Fade-Out to end, move the Master Fader to Infinity (OFF). Press OUT, and take another SNAPSHOT (again both for the Gradation process).
- Choose the UTILITY->AUTOMIX EDIT menu item. Notice how the Playlist Area changes to darker colors, indicating AUTOMIX EDIT mode.
- Above the list of track names, choose MASTER from the first drop-down list, and LEVEL from the second. A single track should become visible in the playlist area, this is your Master Automation track. You should be able to see both your IN and OUT points on the screen.
- Press F3 to SELECT the area between IN and OUT. The area becomes highlighted.
- Press the yellow GRADATION button, located very close to the WAV DISP button. You should see the fade out represented on the screen.

Make sure to set the Master back to Auto-mix PLAY mode to test your work.
By: Lakestone Karl on VSPlanet.com

Normalizing Mastered Tracks without VS MTK Inserts.
If you are sending your master mix out to other gear or PCs for mastering the mastered tracks and having trouble with the Left & Right levels being un-equal and not loud enough you can do this. Master them without any VS MTKs then PHRASE NORMALIZE the master pair. Normalizing acts like a limiter and brings the levels up to a more even stage and can tame some peaks.

A) Mastering room>
Turn it on, then the PLAY button RED for RECORD and select your 23/24-16 V-Tracks or what ever ones you want to record too.

1) Play the auto mix tracks and set the levels on the **meters,** not the master fader, to 0db or -1db. Never light up the “OVER” RED light!

2) Cue the song up to where you want it to begin recording to the master and press the RECORD BUTTON, on the VS and PLAY when ready to record the master. When the master mix is done, FADE OUT.

3) Press STOP and the back to ZERO button on the VS. Now click on the RECORD in the mastering room to change it to GREEN to PLAY the master tracks. They should show up grayed out on the screen. If they sound good then STOP and ZERO and let's move on to the next step.

B) Normalize

1) Click HOME and go to tracks 23 & 24 and click on the "1" to open the V-Track map and select V-Track#16 on both tracks, 23 & 24 to bring them forward in the home screen like regular tracks.

2) Now click on TRACK> and select PHRASE NORMALIZE> and in this window place check marks by 23 & 24 and click "OK". It'll take several minutes to NORMALIZE the pair of tracks. When done go to the CH-Edit page of Track 23 and click CH-Link to link them. Now, send them out.

C) Norm/Masters to Outboard gear or PC

1) Click Mastering Room to "ON" and GREEN for PLAY and the tracks should be grayed out. Press the PLAY button on the VS and set the **meters** to 0db or -1db but never "OVER". When the levels are set, STOP.

2) Now press the back to ZERO button on the VS to cue up the mastered pair of normalized tracks and when you're ready to send them to the Avalon press the PLAY button on the VS. When the mastered mix gets to the end of the song…

3) Watch the **meters** and when they go all the way down where the song fades out press the STOP button on the VS. Now, Zero and you’re DONE!
*This may not be for every body but if you like the results then do it!
Also, you can UNDO/ENTER and try again if you like.

Roland’s PDF on the VS8F-3 card’s Mastering tool kit can be downloaded from this link, great info...
http://www.rolandus.com/uploads/CMS/Downloads/291/VS8F3_WS01.pdf

The INPUT page of the MTK has:

INPUT GAIN - which controls the overall level going into the Multi-band Exp/Comp. This setting is very important. You don't want any clipping here. I usually stay on the safe side with at least -1dB peaks (under the top line). Average levels between -12 and -4 (really whatever it takes to keep it from going over).

D-TIME (detect time)- this should be left at 10ms if you're using the MTK to master. It gives the MTK more time to "work". If you were to use the MTK as a track insert effect you'd need to back this off unless you wanted an audible delay.

L-SPLIT - this is a crossover point for the low frequency (have you ever worked with live PA systems?). It allows you to pick what freq to separate the "sub" freq from the mids.

H-SPLIT - this sets the freq that separates the mids from the highs.

So, as an example, you could set the L-SPLIT to 125Hz and the H-SPLIT to 4K.
This will then allow you to use the Multi-band Comp to compress each freq range individually.
20Hz (or whatever you set the BCut) to 125Hz with the Low Comp.
125Hz to 4K with the Mid Comp.
4K and up with the High Comp. From VSP

SELECTING A PATCH

It goes something like this, say the VS8F-3 card is in slot "A" so that's EFFECT 1 & 2.
1)Click EFFECT> EFFECT 1> a window opens
2)Click "F1 Plug-in" and another window opens
3)Select the plug-in to use by highlighting it, let's say VS8F-3 MTKs
4)Click "F5 Select" and another page comes up..
5)Click "F3 Patch" and the patches open up a list of presets...
6)Highlight one of the patches/presets and click "F5 Select" now it loads the plug-ins patch you selected
7)Now you can click "F5 EXIT" and be done or click "F4 EDIT" and setup you patch.
By Frank Griffith

First select the MTK on the card as you normally would do.
Above the master fader there is a button called Tr1-16 or master block.

Press and hold down the shift button and press the tr1-16, this will bring up the master edit block.
In the tabs below you will see a tab called FX Insert.

Press that and select the slot that has the MTK patched in, this has now placed the MTK over the stereo buss.
This should give you a clean sound?

From VSP.

Waterman, Pete
Uses these settings for live recordings in the MTK.
MTK #231 "mixdown"
EQ on
Low Low mid Hi mid High In gain
gain 0db 0db 1db 2db 0db
freq 100hz 500hz 1800k 10k Level
Q 1.0 1.0 1.0 1.0 2db
shelv shelv

B-cut off
Enhancer off

MTk In
In Gain D-time
3db 10ms
Split Point

Low High
3.5Hz 3.15 Khz

Expander off

MTK Comp on
Low Mid High
Thresh Ratio Thresh Ratio Thresh Ratio
-9db 1:3.1 -9db 1:2.0 -15db 1:2.0
Attack Release Attack Release Attack Release
30ms 239ms 20ms 500ms 20ms 300ms

Mix/ Low 0db Mid 0db High 0db

MTK limiter on
Thresh Attack Release
-1db 2ms 1.377s

Soft Clip off
Hope this helps,
Pete

Gaws replied...
Also in the MTK, turn the Boost Cut "on", and set it around -25, it's been said that that's where the "Mud" usually is.. if'n ya gotz mud.

Theotherfredolsen uses the 3card MTK & LA2A like this....
I just checked --- here are the real numbers for the mastering of **Jimmy Got a Gun**

- 3 MTK is insert FX1 in the mastering room everything is off except
Bass Cut - 20 Hz, Soft Clip – on, Output - 1.5 dB

- LA2A is insert FX2 in the mastering room switched to compress (not limit)
Gain Reduction switch is in the middle position between +4 and -10
Gain – 49, Peak Reduction - 45

I guess I really did use a light touch on this one.
at mix stage I used the -2 card FX looped with varying degrees of send on the channels
P000 – reverb,P001 – reverb, P003 - delay
there were a couple of printed effects on a couple of tracks

Theotherfredolson MTK & LA2A
Try the following settings:
In the -3 MTK (assume everything off unless I give a setting):
BassCut - ON @ 20 Hz, SoftClip - ON
Output - 1.5 dB (or more so that your levels are high --- near 0 dB)

LA2A:
Compress/Limit Switch - Compress
GainReduction switch - Middle position
Gain – 49, Peak Reduction – 45

LDT2 Uses the VS8F-2 card's "Mixdown" Patch for "Commercial Sound" with your master CD.
Start with the MIXDOWN MTK patch. Turn everything off and start with the EQ and progress thru the MTK pages.

I usually just drop a couple db of low mids (around 400hz to 500hz or whatever's bugging me) and raise the high's a couple db. Turn the low cut ON at 20hz or 25hz. The enhancer's up to you if you want to sparkle things a bit.

Now as far as levels go....

1st, try setting the INPUT level so there are no 0dB peaks (stay under to be safe). Set your crossover frequencies however you like (I usually drop the low/mid # and raise the mid/high #).

2nd, set your Multi-band Comp so you're getting around -4 to -6 Gain Reduction on your Mids (depending on how "commercial" you want to squash it). Match that Threshold setting on your lows and drop another 2 numbers on your highs. Also bump the highs a couple numbers on the MIXER after the Comp.

3rd, run the OUTPUT level at +3dB with the softclip ON. This usually slams it up a bit. Now, the solfclip actually works quite well, but it limits to about -1.9dB, so, go into the MIXER menu and select MASTER EDIT. Then click on FX INS. Now turn the RTN level for the MTK up 1.9dB (I've found that 2dB puts the levels over, but use whatever works for you).
This will get you up to 0dB and give you that "commerial hot" sound.

Also, remember to use a comercial CD of similar style as a reference. VERY important.

Here's a little trick... you can pull the INPUT level down and it will change how hard the multiband comps hit the song overall.

How low did you have the gain reduction set?

Try starting with -15db lows, -15 mids and -17 highs. Depending on how much INPUT you put into that, it'll make a big difference.

More recent reply by Waterman on 2card MTK
I have 4 2-vs8f so I use those MTK's for mastering. I use pattern 231 mixdown here's how I tweak it.

First of all you said you were using the expander, I never use it. On all the effects in the MTK watch your input/output gain you might be driving something to hard?

Here's what I use:
1.EQ on, tweak to taste, I usually cut lows and mids a bit and boost the high freq's for a little high end sizzle. Again, watch your input and output gain!
2. b-cut off
3.Enhancer off, although someone here told me I should try it, it's cool?
4.Mastering tool kit in, watch your input gain.
5.Expander, never use it!
6.Compressor on, tweak to taste, I'll mess with all the settings,
Threshold, Ratio, Attack, Release. Low freq's like fast, attack and release.
7.Mix set as default
8.Limiter on
9.Soft clip on

VS Pitch Correction/Auto-tune by Frank Griffith

In order to use the VS for pitch correction with Auto-tune you need to buy and install the VS8RF-3 Card. See other docs in this manual for more on VS8F-3 acrds.

Auto-tune plug-in Settings

These are basic settings to use as a starting point.

1) Select Alto/Tenor etc your vocal range and then set (L + R) to MONO.
2) Under SCALE select Chromatic.
3) Set the RETUNE speed between 10 to 15
4) Set the TRACKING to 1 for Choosey
5) Select the proper KEY of the song.
6) No vibrato, normal setting for vibrato are Depth 44, Rate 4.6, Delay 315.

Once you have these settings selected you can use the Tracking and Retune speed to adjust Auto-tune to taste. It's best to set Auto-tune so that you hear the effect changing the vocal then slowly back settings down until you can't hear the effect. If needed, you can run a vocal thru Auto-tune several times to correct a vocal bit by bit to avoid hearing Auto-tune's effect on the vocal.

VS EFFECT P022 Vocal Multi for Pitch Correction. By Lakestone Karl on VSP

To use the pitch shifter, you must do some auto-mixing.
But, you should be able to HEAR the shift, anyway!

I use P022:Vocal_Multi for this.

Turn OFF everything except the Pitch Shift section.
In the Pitch Shift section:

1) Set the FX_LVL to 100
2) Set the DIR_LVL to 0
3) The CHROMA control shift by half-steps (chromatically).
4) The FINE control gets in-between notes.

OK, Set up a patch where you are sending the vocal to the FX as a LOOP, not as an INSERT.
To audition the adjustment, it will be lots easier if you auto-mix a little first. The idea is to hear ONLY the original track up until the note that is bad, then switch to hear ONLY the output of the FX during the bad note, then switch back to the original track after the bad note.
Then, you can play the section, and adjust the FX's FINE pitch control until the note is in tune.
Once that is done, I'd PRINT THE FX for that note to another track. If the fixed note is longer than half a second, you can edit it in place. Otherwise you must either use the same auto-mix trick with that "fixed" track, or jump thru some hoops to perform the edit. If you have enough tracks to host that fixed track, auto-mixing is easier.

I have used this method to fix vocals and GTR solos with great success.

JJC ask Question: Karl, got it set up like you said, but am missing something on "then switch to hear ONLY the output of the FX during the bad note, then switch back to the

original track after the bad note". Am I supposed to output JUST the effect & if so how? I'm hearing either the tracked note or both the original note AND the patch simultaneously. I toggle back & forth out of the patch but can't separate them, even tried copying the region (it's the last note of the song....16 beats-worth) to another track. Any idea what I might be doing wrong? –

Answer: OK, for this to work, you must send the signal to the FX "PRE" fader....so the FX gets the signal, even when the source channel's fader is turned down. If your original track is VT2, and you are using FX3 to do the shift, set the AUX3_SEND in CHANNEL_2 from "PST" to "PRE".

All you need to do is lower the fader of the original track, and at the same time raise the fader of FX3_RETURN.
16 beats? That's a long note to "fix". Hoo Boy!

VS PRE/POST RECORDING & MIXING By Frank Griffith

Like I've said before, set faders to 0db on the inputs and track faders, use the SENS/PAD to set your levels and use the "F2 IN MIX" for setting inputs and then click on "F3TR MIX" for track levels to be sure they are the same with the meters set to POST. Once your levels are set where the meters are running at -12db with a few peaks turning on the yellow lights -11db to -5db, then record your track. This will leave headroom for adding EQ/Dyn/Comp/EFX in the mixing stage. I set my peak meter at -6db.

Once tracks are recorded; during mixing remember, if you click on PRE and see any levels going into the OVER you need to back off on EQ, COMP or use the ATT knob on the CH-Edit page of the tracks that are going OVER, to bring the levels back below OVER and 0db. *There is a separate LED that lights up for the OVER mark.

Once tracks are recorded, the PRE setting shows you the level that was recorded and what's been added with EQ & Compression. Do not let these levels go over 0db and turn on the RED OVER LED or it can add distortion. When you are playing the tracks and watching the meters on the PRE setting you will notice that the TRACK Faders will not affect the level of the meters. This is normal, PRE means you are seeing the signal before it arrives at the TRACK Fader. The only ways to control this level is by pressing the tracks CH-Edit button and adjusting the EQ, Compression Dynamics settings, using the ATT (Attenuate) knob or editing some EFFECTS patches levels.

POST allows you to use the TRACK Faders to adjust the levels in the mix after the signals pass thru the TRACK Fader, it does not change the recorded level at all. The track faders do nothing to the meters on PRE, the only way to affect that level is by recording it over again or lowering the ATT, EQ, Compression and/or sometimes EFFECTS.

Sometimes it can be tricky getting the right mix while watching both the PRE and POST meters. Adding EQ is the one thing that can change the signal the most, then compression comes next and then maybe some EFFECTs patched. I usually go for the EQ first to see if I can cut back on it some where when I see a hot PRE meter. Also, the ATT knob is a good knob parameter to use when you have a problem track that was recorded to hot and you can not get the performer back in the studio to record the track again. Use the ATT knob to bring the level down below 0db.

Preamp Distortion Test

NOTE: All these steps CAN be completed WITHOUT listening to anything. TURN YOUR SPEAKERS AND 'PHONES OFF, or WAY WAY DOWN.

1) Go to the GEN/OSC screen under your UTILITY menu. Select a 1KHz Sine Wave as the "SOURCE". Turn the MIX button OFF. Turn on Direct Out 6. Turn the OSC. ON.

2) Go to the EZRouting screen, upper right quad of the screen. Connect your analog output 6 to Direct Buss 6. You should now have a nice 1KHz sine wave emanating from analog output #6. You can verify this by connecting to any external amp (KEEP THE VOLUME DOWN!!).

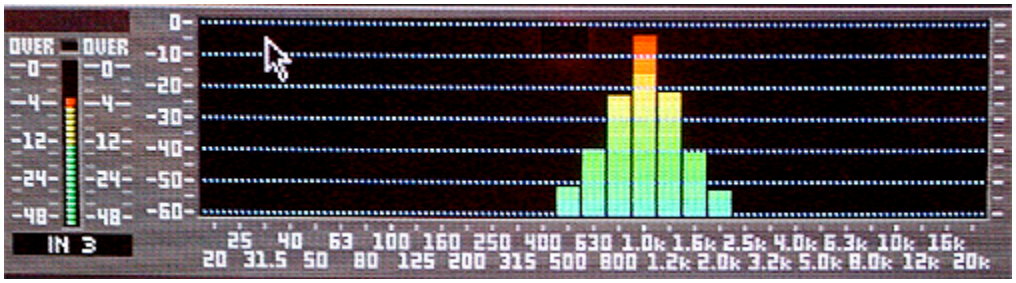
3) Turn ALL the SENS knobs MAX CCW (counter clock wise), and place ALL the PADs IN. Connect a 1/4" TRS cable between output #6 and the input to be tested. A 2 ft. cable should be long enough

4) Invoke the Analyzer, again under the UTILITY menu, and set it to monitor the INPUT UNDER TEST, meaning, dial in IN 1 thru 16 one input at a time on the Analyzer. Also, select A, B, C or D for the slot of the effects processor you want to use during the test. The VS8F-3 card will not work so pick a VS8F-2 card. Also put the PRE/POST on PRE.

5) SLOWLY rotate the SENS control, while monitoring the Level on the left side of the Analyzer display. You should see a SINGLE VERTICAL BAR @ 1KHz in the main portion of the Analyzer display.

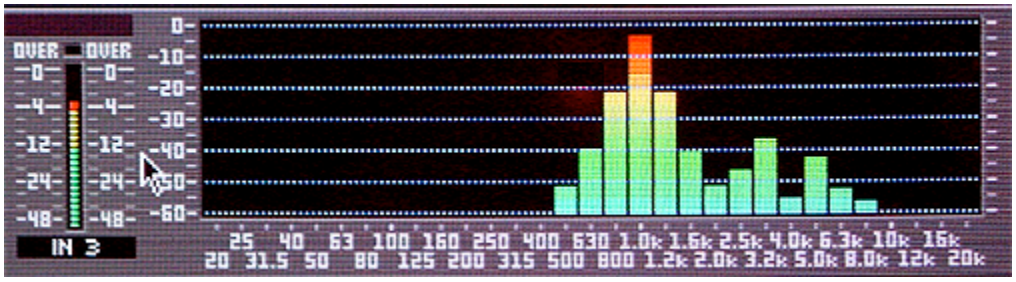
6) As you continue to SLOWLY raise the input control, the 1KHz bar will grow, and smaller sidebars will start at 800Hz and 1.2KHz. This is Normal.

i.e. this is a visual of a good:



7) When the input overloads, all kinds of Upper Harmonics will be displayed. If this occurs at 0dB on the input meter, that's cool. If it occurs at -4 or -6 dB on the input Meter, you need the fix.

i.e. this is bad:



Keep in mind, once you overdrive the input, you might not notice the distortion on that channel for awhile. That's the quick theory behind the "Crank". Meaning, you can quickly turn an input up and then back down before recording what signal is on that input and possibly not run into the harmonic distortion.

Text by: Lakestone Karl
Graphics by: Falcon Eddy & later edited by: Frank Griffith (For Newbees).

PARTS USED by MENGES & LINKS To do the preamp fix job yourself (Copy and paste some links, Ctrl+ L-Click others)

I've done three with no problems.... E-mail me if you need any help.
RadioShack.com
Socket...
http://www.radioshack.com/product/index.jsp?productId=2062604&cp=&kw=socket&parentPage=search

Resistors...
http://www.radioshack.com/product/index.jsp?productId=2062351&cp=&fbn=Type%2F1%26%23047%3B4+Watt+Resistors&f=PAD%2FProduct+Type%2F1%26%23047%3B4+Watt+Resistors&fbc=1&kw =1m+resistors&parentPage=search

Desolder...
http://www.radioshack.com/product/index.jsp?productId=2062745&cp=&kw=desolder&parentPage=search

http://www.digikey.com/
2604...
http://www.digikey.com/scripts/DkSearch/dksus.dll?Detail?Ref=114539&Row=486389&Site=US
2134...
http://www.digikey.com/scripts/DkSearch/dksus.dll?Detail?Ref=115842&Row=531510&Site=US

DWEIL'S Parts list "Pimp My VS" LINK to Post.

http://www.vsplanet.com/ubb/ultimatebb.php?ubb=get_topic;f=16;t=018614

From Brett's Site… http://www.rolandvs2480.net/ Edited to make more sense by Frank Griffith

VS REC & MIXING TRACKS **By Frank Griffith**

1) I record every thing between -12bd and -6db. Never below -12db on the tracks. I EQ and compress bass, snare and kick the most so I record them at -12db. On the tracks that I EQ less and want the loudest, like vocals, I'll let them peak no higher than the -6db mark. It just takes getting use to figuring out which tracks you want at what level for mixing afterwards. Also, the VS Master Bus does some summing of all tracks so this leaves less “Headroom” for EQ, Compression and Effects to be added.

2) Then I mix and add my EQ, Comp & Effects to the tracks in POST. Now this is the important part. I then click on PRE and check all of the meter’s levels. Any thing that goes over 0db, I go to their CH-Edit page and I cut back on EQ and/or ATT knob it, the attenuate knob controls the levels before they go thru the track faders. Once they are all under 0db I move onto the final mixing.

3) I click on POST and start with the tracks I want the loudest first, Vocals and Leads and get them as loud as I can without going over 0db. Then I mix all the other tracks underneath those adjusting only volumes and panning and if I do EQ any thing, it's to cut. If I have to boost any track at that stage of the mixing then I go back and check the CH-Edit page and PRE levels again.

4) Once I have the song the way I like it I press SHIFT+STORE and save it! Now I let the song sit and I take a break and come back for another listen after my ears have rested 15 minutes at the least and some times over night. Then come back and make final adjustments to the mix.

5) Once I'm sure it's how I want it, I master the song and I Optimize that project. Once I have enough songs mastered and Optimized I do a backup of them. If it's really important, I do a backup of that song by it's self. Optimizing and SAVING projects are important. You can SHIFT+STORE any time a lot of work has been done that you don't want to lose and once the final mixing is done I optimize the project.

*Note: If you set your input & track faders at 0db and use your SENS and PADS to set your levels they will be consistent from input to recorded track. If you record your signals at -12db then you won’t have to worry so much with the ATT knob after adding EQ and compression. Recording at -12db leaves you room for adding what ever you need in mix as long as it’s not an extreme amount.

Panning & the Stereo Field

Another thing to keep in mind is the stereo field. Where you place items in the mix helps to bring them out of the mix. If everything is panned to the center then you will wind up with a muddy mess. Think of the PAN knobs as being hands on a clock that can turn from 7 o’clock clock wise to 5 o’clock. Try to place instruments, vocals and drum parts through out the stereo field. A good way to think about where to place them is to think of a band on a stage and place them

where the members would be on the stage left to right. Now think of front to back. You can use volume to make the vocalist sound up front, the louder the closer and visa versa. You can also use REVERB to add distance as well. The more reverb, the further away an instrument sounds. Reverbs can also be used to emulate a space like halls, rooms, cathedrals etc.

Then there's EQ and Compression of which there are other documents on these subjects but briefly, compression can be used to add punch to parts of the drum kit and to instruments like bass to make it stand out in the mix. There is a rule with EQ and Compression, less is more. Mixing can be an art. It can also be a mater of preference. Everybody has their own way of mixing but the more they learn about it and the more they do it, the better they get mixing a good mix, IMO.

Recently I have been mixing my tracks and using the PRE & POST fader settings and doing it this way might help you to mix easier. This is just another way of mixing and focusing more on the PRE/POST setting. PRE shows you the recorded track levels before they reach the TRACK FADER. POST is the level of the TRACKS after the FADER, meaning the FADER controls the level on the meters. On PRE, the track fader does nothing to the levels but adding Compression and EQ does add to the recorded track level.

Mixing with PRE & POST by Frank Griffith

When recoding your tracks, you do not want your meters to go over. There is an "OVER" red light and I do not let it come on. Also, while recording the tracks I would have my PEAK HOLD set to -3db but -6db is even safer. That way, if it lights up I know I'm not leaving enough head room for EQ & Comp in the mixing stage. I try to record between -12 & -6db and use the -6db PEAK HOLD as the highest level that's acceptable.

1. Bring all the track faders down. Set the MASTER RED fader to 0db. Then I start out with the drums and do each drum & percussion track one at a time by soloing them, then raising its track fader to around 0db. While on their channel edit pages I have the PRE button on. That way I am looking at what the recorded levels do as I add or cut EQ settings and Compression.

2. Once all are sounding good one at a time, I turn them all on and go to POST and set the track levels so that the drums track levels sound good mixed all together.

3. Now I add the bass track but I first solo it, bring it's track fader up to around 0db and set the CH-Edit page on PRE and get it to sounding the best I can with EQ and/or Comp or none or both. Once I have it sounding good I take it off of solo and select POST and add it to the drum mix. Making sure the kick and bass is not drowning out the other and set the levels. If something can not be made to be heard, it's not loud enough, then lower all of the faders 2db and try again or add Comp or EQ or both.

4. Now I do the same thing with the rhythm guitars, SOLO then mix on their CH-Edit pages with PRE on then solo off, go to POST and add them to the mix. Then do the same with lead guitars and last I do my vocals.

5. Now is the time I start adding in REVERB to what ever track needs it and in what ever amounts I like. This stage can muddy up the mix if you are not careful so take your time and as I add reverb to tracks, I like to MUTE the others so I can really hear how much I am adding before adding the track with reverb to the mix. Just remember, LESS IS MORE.

Frank, here's the doc. Karl sent me….

Region Arrange:
These PMs are the best way, especially on weekends.

OK, next time, you don't need a new project for every song, but it will help ALOT to push PLAY then RECORD between songs, even for a half second. Even between every few songs is a benefit.

The reason for this is the "non-destructive editing" as implemented on the 2480. Here's what happens....

The basic unit of audio on the 2480 is the PHRASE. A PHRASE is one continuous piece of audio on a single (or two, if linked) track. When you record something, all the audio from when you push RECORD to when you push PLAY or STOP, is a continuous PHRASE. If you were recording on three tracks, then there are three PHRASES, of 16 PHRASES if recording on all 16 tracks. Got it? OK!

So, if you pushed RECORD at the beginning of a set, and didn't push STOP or PLAY at all until the end of the set, each PHRASE you recorded is a whole set long! Still, it's good with me.

Now, let's think about what happens when we try to EDIT a PHRASE. Forgetting about the live project for a minute, let's just use a GTR solo track as an example. You started recording at the start of the song, but the GTR solo didn't come in until 1:45. So you decide to REGION ERASE the first section of the GTR SOLO track.

Now, the GTR track LOOKS smaller, but is it really? Does it consume less disk space?? The answer is NO. Even after you ERASE part of a PHRASE, you can still recover it with a simple drag of your mouse. In fact, you can move a small slice of a PHRASE to a completely different track, then recover the entire phrase on the new track! Not that you would, but you could.

OK, so let's apply this to the live project. A live set may be well over 2GB in size! That's a lot of data to copy and backup. So, the natural thing to do is to make a copy of the original project, erase all but one song, and save the smaller project. But, beleive it or not, the PROJECT WILL BE THE SAME 2GB SIZE, even though only a single song is displayed. Not very efficient.

So here's how to get around it. It's not fast, but it works.

First, MAKE A COPY OF THE ORIGINAL PROJECT, and edit the copy. I'd go ahead and PROTECT the original, so you have less chance of accidentally editing it. Make PROTECTED copies, then UNPROTECT the copy to edit.

OK, now on to the business at hand. We're gonna use the REGION ARRANGE function on the 2480. The REGION ARRANGE function uses Markers, so let's drop a "000"Marker before and a "001"Marker after the song you wish to lift from the set. (I'm assuming these are the ONLY two markers in the project, if not, you just need to know what the markers number really are that delimit your selection. The marker numbers do NOT have to be consecutive.)

ANYWAY, here we go. Invoke the REGION ARRANGE dialog from the TRACK menu. Press F1 to CREATE a region. Select 000 as the START, and 001 as the end, of the region (or substitute your own marker numbers). Press F5, NEXT. This is where you tell the 2480 WHERE to place that region. Just set it WAY OUT PAST THE END of any exiting audio, way out at 2 or 3 hours!! The exact placement is unimportant. Press F5 to perform the edit.

Listen to the newly placed audio to make sure it is what you want, both at the start and the end of the song. It is better to leave it a little long at this point than to chop it too close.

Anyway, when you're satisfied, move to the start of the newly-created section, and press OUT. Then locate to ZERO, and press IN.

OK, here we go, no going back now....invoke the TRACK->REGION CUT menu item, and make sure the "AllVTr" option is set to ON. Press F1 to select tracks, then F2 to select ALL tracks. Now press F5 to CUT OUT ALL THE AUDIO EXCEPT THE RELOCATED AUDIO, thus bringing the relocated audio to ZERO in the process. Check it out, there should ONLY be the smaller section of audio showing, not the entire set.

Even if you were to SAVE the project right now, it would STILL BE EXACTLY THE SAME 2GB SIZE!!! So now, you choose OPTIMIZE. OPTIMIZE will get rid of all the stuff that was CUT, leaving you with a single song, well less than 1GB.

Audio PC Setup

This section is for anyone running a VS-2480 with the Roland R-BUS card (s). It's a basic setup to help you along the way to obtain audio from the 2480 to your PC and back again. Note that the RPC-1 from Roland is in fact designed and built by M-Audio, not Roland themselves.
From this link on line… http://216.120.230.86/~rolandv/Audio%20PC%20Setup.htm
Follow these instructions for correct installation:

The dip – switches on the rear of the RPC-1 cards are for choosing the Clock source. In this case, the RPC-1 should be slaved to the 2480. To do this, the switch nearest to the RPC-1 cards 25 pin D-sub cable should be down, and the other switch should be up.

You will need to open the RPC-1 software (Roland RPC-1 H-W) to check the about tab for the version number.
It should be Version: 5.10.00.0033x6
The Panel Version should read: 1.02.08. If yours matches, then you have updated your drivers correctly. The RPC-1 software (Roland RPC-1 H-W) should be in your Control Panel folder. You can get the latest drivers here for PC and here (both) Mac1, Mac2 for Macintosh - this is the latest official software update from Roland and fixes the ASIO distortion / sync problems for audio software using the ASIO protocol (10.11.03). Here are the latest Delta R-BUS drivers. Download the drivers related to your specific card make and model.

Once you have checked for the Version in the About tab, choose the Hardware Settings tab and make the following changes:

Master Clock = External
MultiTrack Driver Devices = Single and in sync (Multiple Card Sync for 2 or more RPC-1 cards installed)
DMA Buffer size = 384

The Disable Control of…. And the Reset when idle… boxes should both be ticked.

Adjust nothing else in the other tabs – they do not apply to the Roland RPC-1 card. These are for the M-Audio card only.

You can save your setups, and I advise you to do so now. Call it whatever you want. I call mine RPC-1 PC Setup.

The External Clock Sample Rate should be set to the same sample rate as the 2480 project you are working on. This is because the 2480 will be sending its Master Clock to the R-Bus, and of course your PC software. So if you are like me, this can stay at 44.1 KHz. If you want to work higher, then you must have a 2480 project at the desired Sample Rate, and you must change the External Clock Sample Rate in the Roland RPC-1 H-W each time.

Remember also, that whenever you use your system, you must always turn the 2480 on first, leaving the PC the last thing in the chain to turn on. This is to ensure that the RPC-1 card (s) gets the correct Master Clock.

Now you need to go to the 2480 and check the following:

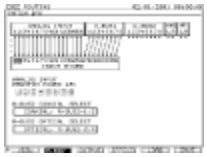
Hit the Utility button and then F3 to bring up the Project Parameter page. Make sure that the Master Clock is set to INT.

Dither and Digital Copy Protect should be OFF.
R-BUS Coaxial Sel and R-BUS Optical should be left alone for now as they are.

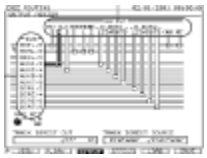
Still in Utility, you need to push the button for the SYNC Parameter page. Make sure the Sync Mode is INT. As a matter of interest, if you are running a sequencer on the PC and want to sync with Midi Time Code from the 2480, then make sure that you choose MTC in the R-BUS1 SYNC Gen. You will have to tell your software what type of synchronization you are using (MTC) and from where (Midi RPC-1). Then, when you play the 2480, as long as the Tempo of the 2480 matches the tempo of your software sequencer, you will see that they run in perfect sync!

Remember to set up (EZ Routing) the RPC-1 inputs and Outputs on the 2480! This can be a bit confusing at first, but I will try and help!

Press EZ Routing and View. Here, you should see that the R-Bus1 inputs are attached to IN 17-24. This merely means that the R-Bus 1 input is controlled by Input Channel 17, 2 by 18 and so on.



Press Output. Here you can see that the R-Bus1 outputs are paired in stereo to the AUX outputs 1 – 8. If they are not, then move them so that they are, just for now.



If you now flip to the Channel inputs 17-24, press the CH EDIT on Channel 17 and in the display, make 17 and 18 a stereo pair by choosing ChLINK On. This will pan them automatically, and put them both at 0 dB. Technically speaking, if you have set up your audio software correctly, the 2480 should play any signal coming from your RPC-1 to the speakers.

With multiple cards, the RPC-1 returns from your PC/Mac can be sent to any channel you desire via the EZ Routing page. Generally, with my 2 cards, I send them RPC-1(1) to channels 9 - 16, and RPC-1(2) to channels 17 - 24. This leaves the analog inputs channels 1 - 8 free for midi gear, FX returns etc.

Don't forget that the RPC-1 cards can also be used as FX sends from AUX send to your music software, and back again to your input channels! Great for Reverbs etc!!

From Brett's site...
http://www.rolandvs2480.net/

VS File System: The VS2480 uses the FAT32 and older models FAT16 files system when formatting therefore making the hard drive compatible with PC setups with NTFS file systems. This means you can connect a VS hard drive to a PC for using various PC programs and tools to recover data from VS hard drives. The only unusual thing is the partition table: The VS uses up to 10 Primary Partition entries in the MBR whereas FAT Spec only defines 4 Primary. Therefore you will need to use a partition shuffling software to get to the remaining partitions. Below are examples from VSP members who reported doing this. Good luck, Frank.

Brett's Data Recovery renaming VR1 Song files at this link, copy and paste in a URL....
http://www.rolandvs2480.net/2480-FAQs/Roland%20VS2480%20Hard%20Drive%20Recovery%20Procedure.htm

VS ScanDiskinPCXP **From VS-Planet**

1. Install your 2480's HD into your computer, there should be an extra HD ribbon hanging from the main hard drive in your PC Tower. Set the PIN/Jumper on the VS hard drive to "Slave."
2. Boot PC to Windows XP once it's up and running,
3. Launch Windows Explorer to see if the drive is recognized. If so, continue to next step, if not then you may want to stop.
4. Right click on the 2480 Drive> select Properties> then the Tools tab > Click the Check Now button.
5. Check both boxes and then start.
6. Wait until it is finished, may take a long time depending on PC speed, issues on hard drive and other problems. If it finds errors tell it to "Truncate" them.
7. When finished, shutdown the PC and install the hard drive back into the 2480.
8. Boot the 2480 and see if it worked.

http://support.microsoft.com/kb/315265/en-us

Here's the link to Microsoft's Knowledge base site on how to run "Scandisk in Windows XP." It may or may not help.

VS2480 Data Recovery By Brett LaCroix
http://www.rolandvs2480.net/2480-FAQs/2480-hangs-on-boot-up.htm

Recovering Lost Songs or Directory from a Partition on the VS2480 Hard Drive

First, you must remove the hard drive from the VS2480. Look closely at the pin configuration for your particular hard drive and note what the setting is for "Master" and for "Slave".

You will need to reset the "pin configuration" and hook up the VS2480 hard drive into your computer as a "Slave drive". Once you are hooked up and your computer is turned on, make a "file folder" on the "desktop" and call it

“VSData” (just to keep things easy and clean). This is where you will “copy” VS2480 “SONG” information “to”.

On the “desktop” of your computer, double click on the “My Computer” icon. The window will open up and show you all of the drives you have connected to your system. For example;

3 1/2 Floppy (A:)
Local Disk (C:)
Compact Disk (D:)
…etc…

The VS2480 hard drive will show up as “letter! ” (IDE) drives, other than those listed above. (For example: partition “0” from the VS hard drive may be IDE (E:), partition “1” may be IDE (F:), and so on…). They may not be organized exactly one after another but the progressive lettering is in order, so pay close attention to what drive letters belong to the VS2480 hard drive. (Note that only the first 4 (IDE) partitions of the VS2480 hard drive may be listed). These new drive letters may not exceed (4), but the partition you need to recover is usually within the first 4 partitions anyway.

When you open one of the VS2480 hard drive (IDE) partitions (that would not open on the VS2480), you will see a list of “file folders” like the following;

SONG0001.VR1
SONG0002.VR1
SONG0003.VR1
SONG0004.VR1
…and so on…

Following the SONG.VR1 file folders, there will be (14) more files in the list. These (14) files are what tell the VS2480 what to do with the information on that partition. One or more of these (! 14) files will be corrupted, and preventing the VS2480 from booting-up that partition, or preventing a specific SONG from loading.

You will need to “copy” each SONG.VR1 file folder (and its contents), one at a time, over to the “VSData” file folder that you created on the desktop. But DO NOT copy the (14) files from the list following the SONG.VR1 file folders!

For example: Once you have copied the SONG0001.VR1 file folder (with its contents), over to the “VSData” file folder, you can check the contents by opening the newly copied SONG0001.VR1 file in the “VSData” folder. You will see (21) files that look like the following;

AMIXPCTL.VR1
AUTOMIX0.VR1
AUTOMIX1.VR1

AUTOMIX2.VR1
AUTOMIX3.VR1
AUTOMIX4.VR1
AUTOMIX5.VR1
AUTOMIX6.VR1
AUTOMIX7.VR1
AUTOMIX8.VR1
AUTOMIX9.VR1
COMMENT.VR1
EFFECT.VR1
EVENTCFG.VR1
EVENTLST.VR1
MARKER.VR1
MIXER.VR1SCENE.VR1
SONG.VR1
SYNCTRK.VR1
SYSTEM.VR1

After the first (21) files (that will always be in every song), there will be a number of TK.VR1 files. These "TK.VR1" files are the actual recorded audio track information. The number of TK.VR1 files that appear in each "SONG" will vary with the number of audio tracks recorded to each particular song.

TK000004.VR1
TK000242.VR1
TK000431.VR1
TK000492.VR1
…and so on…

Once all of the songs from the "corrupted" partition have been copied over to the "VSData" file folder on the desktop, you should make sure that the number of songs in the "VSData" file folder are equal to the number of songs from the VS2480 hard drive (IDE) partition. Take note of how many "SONG's" you have.

Only "AFTER" you are completely sure you have copied all of the songs (and their contents), over to the "VSData" file folder, you can "delete" ALL of the SONG's and the (14) files. But ONLY from "that" particular VS2480 hard drive (IDE) partition! DO NOT delete anything from any other VS2480 hard drive (IDE) partitions!

Now remove the VS2480 hard drive from the computer and reset the "pin configuration" back to the "Master" setting for that particular hard drive. Re-install the VS2480 hard drive back into the VS2480 and turn on the power.

The VS2480 should load up a "song" from one of the partitions (it doesn't matter which one). Go to the "Project List" and select the IDE partition where the corrupted files "used to be". Select "List" and a "New" song will open up

and be added into that partition. This song should be “InitProj.000”. Continue adding “New” songs to that partition (and don’t forget to SAVE each one as you go), until you have reached the number of songs you previously took note of earlier.

Once you have the correct number of “empty” songs, shut down the VS2480, and remove the VS2480 hard drive again. Chang! e the “pin configuration” over to “slave”, then install the hard drive back into the computer. Turn the computer on and open the “My Computer” icon. Choose the previously corrupted (IDE) partition from the VS2480 hard drive. This partition will now have a list of “SONG” file folders equal to the number of “SONG” file folders saved to the “VSData” file folder on the desktop. AND the (14) files in the list will now be “corrected” for the VS2480 to read. These (14) files must not be touched from here on out!

Open each SONG (one by one), in order, on the VS2480 hard drive (IDE) partition. First, “erase” the (21) files within the song, Then “copy” over the contents only (21 files and the TK.VR1 files), from the corresponding SONG in the “VSData” file folder, into the VS2480 hard drive (IDE) partition SONG file folder.

You are done when all of the files within each SONG from the “VSData” file folder on the “desktop”, are copied into each SONG within the VS2480 hard drive (IDE) partition. The VS2480 hard drive can now be removed from the computer, the “pin configuration” reset to “master”, and finally reinstalled into the VS2480.

Turn on the VS2480 and wait for a “song” to load. Go to the “Project List” and choose the (IDE) partition (that you are working on), by selecting “List”. All of the songs in that partition should now appear. Open a song (one by one), in that partition, and after it has fully loaded, you must “save” it. Then move to the next song in the list, load it, then save it, and so on, until you have done this to every song in that partition. Each time you “save” the song, the correct “name” and file “size” will be displayed as it was before the directory was corrupted (preventing you from accessing the partition or songs in the first place).

All of the songs (or partition), should now be back the way they were. Unfortunately, there is no other way to reorganize or rebuild the directory o! f a VS2480 hard drive (IDE) partition once it is corrupted. You can fool the SONG file by copying data into it, but the VS2480 has to “write” the directory information from within the machine itself.

A Shortcut…

If, for example, partition “1” (or any of its songs), are corrupted and there is no data saved on partition “2”…

Then (while the VS2480 hard drive is still in the VS2480), open up partition "2" and create a number of "new" songs. If you are unsure of how many songs are to be recovered from partition "1", then always make more "new" songs than you would possibly need. You can erase the un-needed songs later on.

Follow the instructions above; by installing the VS2480 hard drive into the computer. Copy the SONGs from the VS2480 hard drive (IDE) partition "1" over to the "VSData" file folder on the desktop. Then copy the "VSData" SONG files back into the "newly" created VS2480 hard drive (IDE) partition "2" SONG files.

This could save one complete step and perhaps a little time, BUT only when you are able to access the VS2480 hard drive to begin with. If you cannot access the VS2480 hard drive at all, you must follow the multiple steps…

ALSO, A success story with another data recovery process.
Thanks to all who chimed in to help me out with this one, esp. Falcon Eddy, Brett Lacroix, and Lakestone Karl!!!

I was in a very bad place because I accidentally erased a Project from the Project List. Thanks to someone's recommendation, I used GetBackData for FAT by Runtime.org.
I HIGHLY recommend it. It found the deleted data no problem. OF COURSE, I hadn't written anything to the drive partition since making the mistake of erasing the project. I understand that doing so makes the chances unlikely.

And then, thanks to Brett's "instructions for rebuilding the Directory", i was easily able to throw it back on the VS drive and it was back to the pleasing familiar file!!!

For the record, I also tried Active Undelete, but it didn't find the file, so I'd recommend GETBACKDATA. **By Kurugod on VSP**

"Accidental Project Erase" Now how Kurugod did it…
Frank.
I just plugged the drive into a PC and ran the GetBackData app on the partition. It found a bunch of deleted stuff, so I picked the folder that was around the same size as the directory on the VS told me it was (2.71 gb).
To verify, I opened the SONG.VR1 file in that folder with a simple Word processor app. That file had the project title "ZOA" embedded in it, so I knew it was the holy grail.
At that point, I had to Buy the software in order to transfer the files to the PC. From there, I followed Brett's instructions on rebuilding the directory, which I'll list below..

Brett's VS2480 Data Recovery

Recovering Lost Songs or Directory from a Partition on the VS2480 Hard Drive

First, you must remove the hard drive from the VS2480. Look closely at the pin configuration for your particular hard drive and note what the setting is for “Master” and for “Slave”.

You will need to reset the “pin configuration” and hook up the VS2480 hard drive into your computer as a “Slave drive”. Once you are hooked up and your computer is turned on, make a “file folder” on the “desktop” and call it “VSData” (just to keep things easy and clean). This is where you will “copy” VS2480 “SONG” information “too”.

On the “desktop” of your computer, double click on the “My Computer” icon. The window will open up and show you all of the drives you have connected to your system. For example;

3 1/2 Floppy (A:)
Local Disk (C:)
Compact Disk (D:)
…etc…

The VS2480 hard drive will show up as “letter! ” (IDE) drives, other than those listed above. (For example: partition “0” from the VS hard drive may be IDE (E:), partition “1” may be IDE (F:), and so on…). They may not be organized exactly one after another but the progressive lettering is in order, so pay close attention to what drive letters belong to the VS2480 hard drive. (Note that only the first 4 (IDE) partitions of the VS2480 hard drive may be listed). These new drive letters may not exceed (4), but the partition you need to recover is usually within the first 4 partitions anyway.

When you open one of the VS2480 hard drive (IDE) partitions (that would not open on the VS2480), you will see a list of “file folders” like the following;

SONG0001.VR1
SONG0002.VR1
SONG0003.VR1
SONG0004.VR1
…and so on…

Following the SONG.VR1 file folders, there will be (14) more files in the list. These (14) files are what tell the VS2480 what to do with the information on that partition. One or more of these (14) files will be corrupted, and preventing the VS2480 from booting-up that partition, or preventing a specific SONG from loading.

You will need to “copy” each SONG.VR1 file folder (and its contents), one at a time, over to the “VSData” file folder that you created on the desktop. But DO NOT copy the (14) files from the list following the SONG.VR1 file folders!

For example: Once you have copied the SONG0001.VR1 file folder (with its contents), over to the “VSData” file folder, you can check the contents by opening the newly copied SONG0001.VR1 file in the “VSData” folder. You will see (21) files that look like the following;

AMIXPCTL.VR1
AUTOMIX0.VR1
AUTOMIX1.VR1
AUTOMIX2.VR1
AUTOMIX3.VR1
AUTOMIX4.VR1
AUTOMIX5.VR1
AUTOMIX6.VR1
AUTOMIX7.VR1
AUTOMIX8.VR1
AUTOMIX9.VR1
COMMENT.VR1
EFFECT.VR1
EVENTCFG.VR1
EVENTLST.VR1
MARKER.VR1
MIXER.VR1SCENE.VR1
SONG.VR1
SYNCTRK.VR1
SYSTEM.VR1

After the first (21) files (that will always be in every song), there will be a number of TK.VR1 files. These “TK.VR1” files are the actual recorded audio track information. The number of TK.VR1 files that appear in each “SONG” will vary with the number of audio tracks recorded to each particular song.

TK000004.VR1
TK000242.VR1
TK000431.VR1
TK000492.VR1
…and so on…

Once all of the songs from the “corrupted” partition have been copied over to the “VSData” file folder on the desktop, you should make sure that the number of songs in the “VSData” file folder are equal to the number of songs from the VS2480 hard drive (IDE) partition. Take note of how many “SONG’s” you have.

Only “AFTER” you are completely sure you have copied all of the songs (and their contents), over to the “VSData” file folder, you can “delete” ALL of the SONG’s and the (14) files. But ONLY from “that” particular VS2480 hard drive (IDE) partition! DO NOT delete anything from any other VS2480 hard drive (IDE) partitions!

Now remove the VS2480 hard drive from the computer and reset the “pin configuration” back to the “Master” setting for that particular hard drive. Re-install the VS2480 hard drive back into the VS2480 and turn on the power.

The VS2480 should load up a “song” from one of the partitions (it doesn’t matter which one). Go to the “Project List” and select the IDE partition where the corrupted files “used to be”. Select “List” and a “New” song will open up and be added into that partition. This song should be “InitProj.000”. Continue adding “New” songs to that partition (and don’t forget to SAVE each one as you go), until you have reached the number of songs you previously took note of earlier and copied to your “VSData” folder.

Once you have the correct number of “empty” songs, shut down the VS2480, and remove the VS2480 hard drive again. Change the “pin configuration” over to “slave”, then install the hard drive back into the computer. Turn the computer on and open the “My Computer” icon. Choose the previously corrupted (IDE) partition from the VS2480 hard drive. This partition will now have a list of “SONG” file folders equal to the number of “SONG” file folders saved to the “VSData” file folder on the desktop. AND the (14) files in the list will now be “corrected” for the VS2480 to read. These (14) files must not be touched from here on out!

Open each SONG (one by one), in order, on the VS2480 hard drive (IDE) partition. First “erase” the (21) files within the song. Then “copy” over the contents only (21 files and the TK.VR1 files), from the corresponding SONG in the “VSData” file folder, into the VS2480 hard drive (IDE) partition SONG file folder.

You are done when all of the files within each SONG from the “VSData” file folder on the “desktop”, are copied into each SONG within the VS2480 hard drive (IDE) partition. The VS2480 hard drive can now be removed from the computer, the “pin configuration” reset to “master”, and finally reinstalled into the VS2480.

Turn on the VS2480 and wait for a “song” to load. Go to the “Project List” and choose the (IDE) partition (that you are working on), by selecting “List”. All of the songs in that partition should now appear. Open a song (one by one), in that partition, and after it has fully loaded, you must “save” it. Then move to the next song in the list, load it, then save it, and so on, until you have done this to every song in that partition. Each time you “save” the song, the correct “name” and file “size” will be displayed as it was before the directory was corrupted (preventing you from accessing the partition or

songs in the first place).

All of the songs (or partition), should now be back the way they were. Unfortunately, there is no other way to reorganize or rebuild the directory of a VS2480 hard drive (IDE) partition once it is corrupted. You can fool the SONG file by copying data into it, but the VS2480 has to “write” the directory information from within the machine itself.

A Shortcut…

If, for example, partition “1” (or any of its songs), are corrupted and there is no data saved on partition “2”…

Then (while the VS2480 hard drive is still in the VS2480), open up partition “2” and create a number of “new” songs. If you are unsure of how many songs are to be recovered from partition “1”, then always make more “new” songs than you would possibly need. You can erase the un-needed songs later on.

Follow the instructions above; by installing the VS2480 hard drive into the computer. Copy the SONGs from the VS2480 hard drive (IDE) partition “1” over to the “VSData” file folder on the desktop. Then copy the “VSData” SONG files back into the “newly” created VS2480 hard drive (IDE) partition “2” SONG files.
!
This could save one complete step and perhaps a little time, BUT only when you are able to access the VS2480 hard drive to begin with. If you cannot access the VS2480 hard drive at all, you must follow the multiple steps.

Another success story with Funkyhamsta
(Stuck on “Load Project” after normal shutdown the night before)

Here's perhpas some useful experience for those who witness a random lock-up like I did on the 'Load Project' stage.

I duly removed the HDD from the 2480 and changed the jumpers on the back to be a slave drive on my Win XP SP2 PC. I hooked it up and booted up.

The drive showed up with all it's (4) partitions and only partit. 1 was the one I was concerned with. The usual VR1 files and folders appeared.

I ran scandisk and it found no errors.
I then copied all the files from the partition onto my PC and all went well until the very last few files. I couldn't read the following files (Windows said they were corrupt) which were all located in the top level directory (i.e. not any of the song directories):

TMPAMIX4.vr1

TMPAMIX5.vr1
and so on up to
TMPAMIX9.vr1

also TMPSCENE.vr1 was corrupt (it was about 1.6MB in size).

All the TMPAMIX files were 4kb and there were four still intact that would copy (TMPAMIX0 thru to TMPAMIX3.vr1)

I then opened a DOS prompt window in XP and entered CHKDSK D: (which was the problem partition).

It then created the FOUND dir and fragmented files which corresponded to the size of the corrupt files from before.

The problem files were duly deleted and turned into Windows *.000 files.

I then thought how about I *fake* the remaining TMPAMIX files that were corrupt by copying a complete TMPAMIX file and renaming it to the corrupt ones to replace them.

I did this 4 or 5 times and replaced the corrupt TMPAMIX files 5 thru to 9.

I stuck the drive back in the 2480 and BANG - straight in, all projects there, all tracks, all fine...

BOY..I consider myself an unwitting genius or bloody lucky....

I hope someone else can gain some use from this experience and mild panic...

Ecstatically dancing,

MORE ON DATA RECOVERY BY Bear.

VS2480 Data Recovery

Recovering Lost Songs or Directory from a Partition on the VS2480 Hard Drive

First, you must remove the hard drive from the VS2480. Look closely at the pin configuration for your particular hard drive and note what the setting is for “Master” and for “Slave”.

You will need to reset the “pin configuration” and hook up the VS2480 hard drive into your computer as a “Slave drive”. Once you are hooked up and your computer is turned on, make a “file folder” on the “desktop” and call it “VSData” (just to keep things easy and clean). This is where you will “copy” VS2480 “SONG” information “to”.

On the “desktop” of your computer, double click on the “My Computer” icon. The window will open up and show you all of the drives you have connected to your system. For example;

3 1/2 Floppy (A:)
Local Disk (C:)
Compact Disk (D:)
…etc…

The VS2480 hard drive will show up as “letter” (IDE) drives, other than those listed above. (For example: partition “0” from the VS hard drive may be IDE (E:), partition “1” may be IDE (F:), and so on…). They may not be organized exactly one after another but the progressive lettering is in order, so pay close attention to what drive letters belong to the VS2480 hard drive. (Note that only the first 4 (IDE) partitions of the VS2480 hard drive may be listed). These new drive letters may not exceed (4), but the partition you need to recover is usually within the first 4 partitions anyway.

When you open one of the VS2480 hard drive (IDE) partitions (that would not open on the VS2480), you will see a list of “file folders” like the following;

SONG0001.VR1
SONG0002.VR1
SONG0003.VR1
SONG0004.VR1
…and so on…

Following the SONG.VR1 file folders, there will be (14) more files in the list. These (14) files are what tell the VS2480 what to do with the information on that partition. One or more of these (14) files will be corrupted, and preventing the VS2480 from booting-up that partition, or preventing a specific SONG from loading.

You will need to “copy” each SONG.VR1 file folder (and its contents), one at a time, over to the “VSData” file folder that you created on the desktop. But DO NOT copy the (14) files from the list following the SONG.VR1 file folders!

For example: Once you have copied the SONG0001.VR1 file folder (with its contents), over to the “VSData” file folder, you can check the contents by opening the newly copied SONG0001.VR1 file in the “VSData” folder. You will see (21) files that look like the following;

AMIXPCTL.VR1
AUTOMIX0.VR1
AUTOMIX1.VR1
AUTOMIX2.VR1
AUTOMIX3.VR1
AUTOMIX4.VR1
AUTOMIX5.VR1
AUTOMIX6.VR1
AUTOMIX7.VR1
AUTOMIX8.VR1

AUTOMIX9.VR1
COMMENT.VR1
EFFECT.VR1
EVENTCFG.VR1
EVENTLST.VR1
MARKER.VR1
MIXER.VR1
SCENE.VR1
SONG.VR1
SYNCTRK.VR1
SYSTEM.VR1

After the first (21) files (that will always be in every song), there will be a number of TK.VR1 files. These "TK.VR1" files are the actual recorded audio track information. The number of TK.VR1 files that appear in each "SONG" will vary with the number of audio tracks recorded to each particular song.

TK000004.VR1
TK000242.VR1
TK000431.VR1
TK000492.VR1
…and so on…

Once all of the songs from the "corrupted" partition have been copied over to the "VSData" file folder on the desktop, you should make sure that the number of songs in the "VSData" file folder are equal to the number of songs from the VS2480 hard drive (IDE) partition. Take note of how many "SONG's" you have.

Only "AFTER" you are completely sure you have copied all of the songs (and their contents), over to the "VSData" file folder, you can "delete" ALL of the SONG's and the (14) files. But ONLY from "that" particular VS2480 hard drive (IDE) partition! DO NOT delete anything from any other VS2480 hard drive (IDE) partitions!

Now remove the VS2480 hard drive from the computer and reset the "pin configuration" back to the "Master" setting for that particular hard drive. Re-install the VS2480 hard drive back into the VS2480 and turn on the power.

The VS2480 should load up a "song" from one of the partitions (it doesn't matter which one). Go to the "Project List" and select the IDE partition where the corrupted files "used to be". Select "List" and a "New" song will open up and be added into that partition. This song should be "InitProj.000". Continue adding "New" songs to that partition (and don't forget to SAVE each one as you go), until you have reached the number of songs you previously took note of earlier.

Once you have the correct number of "empty" songs, shut down the VS2480, and remove the VS2480 hard drive again. Change the "pin configuration" over to "slave", then install the hard drive back into the computer. Turn the computer on and open the "My Computer" icon. Choose the previously corrupted (IDE) partition from the VS2480 hard drive. This partition will now have a list of "SONG" file folders equal to the number of "SONG" file folders saved to the "VSData" file folder on the desktop. AND the (14) files in the list will now be "corrected" for the VS2480 to read. These (14) files must not be touched from

here on out!

Open each SONG (one by one), in order, on the VS2480 hard drive (IDE) partition. First "erase" the (21) files within the song. Then "copy" over the contents only (21 files and the TK.VR1 files), from the corresponding SONG in the "VSData" file folder, into the VS2480 hard drive (IDE) partition SONG file folder.

You are done when all of the files within each SONG from the "VSData" file folder on the "desktop", are copied into each SONG within the VS2480 hard drive (IDE) partition. The VS2480 hard drive can now be removed from the computer, the "pin configuration" reset to "master", and finally reinstalled into the VS2480.

Turn on the VS2480 and wait for a "song" to load. Go to the "Project List" and choose the (IDE) partition (that you are working on), by selecting "List". All of the songs in that partition should now appear. Open a song (one by one), in that partition, and after it has fully loaded, you must "save" it. Then move to the next song in the list, load it, then save it, and so on, until you have done this to every song in that partition. Each time you "save" the song, the correct "name" and file "size" will be displayed as it was before the directory was corrupted (preventing you from accessing the partition or songs in the first place).

All of the songs (or partition), should now be back the way they were. Unfortunately, there is no other way to reorganize or rebuild the directory of a VS2480 hard drive (IDE) partition once it is corrupted. You can fool the SONG file by copying data into it, but the VS2480 has to "write" the directory information from within the machine itself.

A Shortcut…

If, for example, partition "1" (or any of its songs), are corrupted and there is no data saved on partition "2"…

Then (while the VS2480 hard drive is still in the VS2480), open up partition "2" and create a number of "new" songs. If you are unsure of how many songs are to be recovered from partition "1", then always make more "new" songs than you would possibly need. You can erase the un-needed songs later on.

Follow the instructions above; by installing the VS2480 hard drive into the computer. Copy the SONGs from the VS2480 hard drive (IDE) partition "1" over to the "VSData" file folder on the desktop. Then copy the "VSData" SONG files back into the "newly" created VS2480 hard drive (IDE) partition "2" SONG files.

This could save one complete step and perhaps a little time, BUT only when you are able to access the VS2480 hard drive to begin with. If you cannot access the VS2480 hard drive at all, you must follow the multiple steps…

SOLOING A TRACK WITH EFFECTS LOOPED
1) Make note of which FX RTN the looped effect is routed thru and Start on the TR1-16 fader button bank, Hold SHIFT and press "IN 1-16 [SOLO]" (fader button above the master fader) let go while all CH-Edit buttons are flashing.

2) Now press the flashing CH-Edit button of the TRACK to solo and that CH-Edit button stops flashing and is lit solid.

3) Now press the "TR 17-24 [FX RTN]" (fader buttons above master fader) to get to the flashing CH-Edit buttons for the FX return. (this is where you'll solo your EFFECT/FX RTN with your track)

4) Now press the flashing CH-Edit button of the FX RTN you want to solo, this would correspond to the effect you have looped thru this FX RTN and made note of at the begining, like a reverb.

5) To get out of this mode you need to hold SHIFT and press solo again the track and effect will still be soloed together for mixing.

*Note: To clear all your soloed Tracks and FX RTN's at once press and HOLD CLEAR and then press "In 1-16 [SOLO]. You can also CLEAR soloed TRACK's & FX RTN's by clicking on the little black arrow at the bottom of the solo row or "S's" on the HOME screen.

SOLO TRACK WITH EFFECTS SIMPLE
Just MUTE all other tracks. If you are using just the TR1-16 tracks for a song then this is about the fastest and simplest way to do this.

SOLING FROM TRACK & FX RTN MIXER VIEW
1) Click on the MIXER Menu, at the top of the screen, then select TRACK MIXER/FX RTN MIXER. The whole track view changes to show the track and FX RTN mixer.

2) Then solo the TRACK using the "S" button above the virtual TRACK fader and PAN knob, click on it and it turns blue. (Look for a group of four dark buttons above the virtual Pan knobs.)

3) Now find the FX RTN, bottom right of the screen, and click on the solo button "S" for the FX RTN the EFFECT is routed through. (I also have a locator set to cue up the track I am checking the mix of the effect with.)

4) Now you are ready to do your mixing, checking levels of the effect, EQing etc by pressing the TRACK's CH-Edit button. Press Play and make your adjustments. Press the CH-Edit button again and you are back to the TRACK MIXER view to select other tracks and effects if needed or just click HOME to return to the home screen.

NOTE: To clear the soloed TRACK & FX RTN again, press and HOLD CLEAR and then press "In 1-16 [SOLO]. You can also CLEAR soloed TRACK's & FX RTN's by clicking on the little black arrow at the bottom of the solo row or "S's" on the HOME screen or click on the "S" that's soloing the TRACK and FX RTN on the TRACK MIXER screen.
Thanks to teknail on VSP for help with this document, Frank Griffith.

Project SPLIT and COMBINE works faster than TRACK EXPORT/ WAVE IMPORT. Here's how to do it.

It helps if all your tracks are in the same format. I prefer to make 24-bit MIXES without any MTK applied, and no fade outs. The MTK and fade-outs will be applied in the final CD version of the project. I often include fade-outs in working mixes, but omit them for this step.

In each of your single-song projects, you want to PROJECT->SPLIT the final mixed stereo pair to it's own project. The SPLIT operation make a copy of the parent project with only the tracks you have selected, and puts the letter "A" as the last character in the name of the newly-SPLIT project.

Now you end up with X-number of 1-song-1-track projects, in addition to your original projects.

In each of these smaller projects, move the stereo pair to ZERO on a common V-Track. For instance, move all the Mastered Tracks to VT23/24.1 in all the projects. Also remove any and all MARKERS within these projects. Hold SHIFT and press PREVIEW FROM (PROJECT END) and make sure the end of the project is indeed the end of the desired audio.

Now choose the first song of the CD, and open its project. Rename this project as a Complied CD project, just to keep it straight.
To add a song to the Complied CD project, choose PROJECT->COMBINE. Then select the exiting Compiled CD project, and the project that is the next song, and COMBINE them. This places the new song 4 seconds behind the end of the existing song(s).

Repeat the COMBINE process until all the songs are in order, and in the same Complied CD project.

Now you can go ahead and apply the MTK tools, automix fades, adjust playback levels, to create a cohesive project.

By Karl Lakestone

VS SUB MIXES/BOUNCING.

To sub mix several tracks down to one track or a pair, like all of your drum tracks or background vocals, decide which tracks to send where. Let's say, drums on 1 thru 6 are to be sub mixed to Tracks 15 & 16. Usually a sub mix is done in stereo, so first let's link TRACKS 15 & 16

1)First PRESS the CH-Edit button of TRACK 15 and on the CH-Edit page of TR 15 select "CH LINK" below the ATT Knob on the right of that screen, then click HOME.

Now let's use QUICK ROUTING to route out SOURCE TRACKS to our DESTINATION TRACKS. [If you are adding an effect then connect the FX RTN number that matches the effect number to your destination track on the RECORDING TRACK block or see bouncing with effects below.]

2) PRESS and HOLD TRACK 15's TRACK STATUS button till the QUICK ROUTING window opens. All track status and CH-Edit buttons will flash except the DESTINATION TRACKS, 15 & 16.

3) Now PRESS the flashing CH-EDIT buttons of the TRACKS you want to send to TRACKS 15 & 16. This will link SOURCE TRACKS to the DESTINATION TRACKS in the Quick Routing window. When all are linked, click on "F6 EXIT."

*If a wrong connection was made you can PRESS the CH-Edit button of the SOURCE TRACK again to disconnect it before exiting the window.

4) Now simply ARM TRACK 15 to RECORD, both TRACK STATUS buttons of 15 & 16 will flash RED. When ready to do a test mix just PRESS RECORD and PLAY.

5) When done mixing PRESS STOP, ZERO, and then MUTE all other TRACKS or SOLO TRACKS 15 & 16 and PRESS the TRACK STATUS button of TRACK 15 till 15 & 16 are GREEN to PLAY back your sub mix.

6) If you don't like the sub mix then PRESS the UNDO button and then the ENTER button and try it again.

*Another way to do SUB MIXES using the Mastering Room is to select V-Tracks on Tracks 23 & 24 to mix to, you can INSERT an MTK and after the mix is done, use TRACK EXCHANGE to exchange them with V-Tracks 1-15 & V-Track 1-16 on tracks 23 & 24 and free up the Mastering Room for further Mastering.

BOUNCING A SINGLE TRACK

This time we will bounce a single track without using Quick Routing. Let's say you have a vocal on Track 5 and you want to bounce it to Track 15 for whatever reason, to have a double vocal or to loop or insert an effect. Make sure your AUX BUS 1 thru 8 and FX RTN 1 thru 8 FADERS are all up and set to 0db for routing any EFFECTS you might need. Now we will need to go to EZ Routing> Routing View> to do this….

1) On the EZ-Routing page you see TRACK MIXER 1-24 in the lower left quadrant of the screen, Click on your vocal TRACK 5's number 5 and drag a virtual cable up to the RECORDING TRACKS 1-24 and connect it to TRACK #15. Assuming you already have an effect patched into a processor, if you want to add a LOOP Effect to the Vocal going to Track 15 and have the EFFECT recorded with it, then click and drag the FX1 thru 8 Effect number your EFFECT is on and connect it to Track 15 too, FX RTN1 is EFFECT1, FX RTN2 is EFFECT2, FX RTN3 is EFFECT3 and so on. (If your Reverb is Patched into EFFECT 1 then FX RTN's number 1 should be connected to the Recording Track number 15 also we do this for LOOPED Effects to an INPUT that's sending a signal to a track to record. (We do not do this for INSERT EFFECTS). Now click HOME.

2) If you want to add an INSERT Effect to the vocal going to TRACK 15 and have that printed with the vocal then press the CH-Edit button of Track # 5 and on that page click on the FX1 thru 8 number with the EFFECT you want INSERTED, FX1 is EFFECT1, FX2 is EFFECT2, FX3 is EFFECT3 and so on, if it's the LOOPED reverb of EFFECT 1 make sure the effects FX RTN is connected to the destination track in the RECORDING TRACK block then turn up the AUX 1 knob, on the CH-Edit page of TRACK #5, to complete the LOOP and add the amount of the reverb you want. Now click HOME.

3) Now all we do is arm TRACK # 15 to record and PRESS Record & Play. Any fader movements made on TRACK 5 during the recording will be copied to TRACK 15 so make sure your Faders and levels are set the way you want them to record onto Track 15.

4) When done press STOP and check Track 15 and your bounce. If you want to do it over, now press UNDO> and a window opens with your last action highlighted now press ENTER to erase this one and start over. Once you do get the bounce right remember to take out any effects you INSERTED on TRACK 5 to free up that EFFECT and remove it from TRACK 5. If is was LOOPED then disconnect the FX RTN to RECORDING TRACK connection you made.

***Bouncing Tracks are easy.** You just go to the EZ Routing page and connect a track, or tracks, from the TRACK MIXER to the RECORDING TRACK, or a linked pair of tracks. Make sure the effects FX RTN is connected to the destination track in the RECORDING TRACK block, then ARM the destination track or tracks and press Record & Play. It gets a little tricky when you want to INSERT an EFFECT and more so if you want to LOOP an EFFECT. So, I keep the AUX and FX RTN Faders @ 0db. Also, too quickly link inputs or tracks just press and hold the odd numbered channel and press the even numbered one and this will link the pair for stereo inputs or tracks.

If you want to add an INSERT EFFECT to a track, see the MS Word docs on EFFECTS. You just press the CH-Edit button of the track to INSERT the EFFECT, click on the EFX button of the EFFECT to INSERT. Now go to EFFECT> select the EFFECT number to patch in the EFFECT you want INSERTED. To LOOP the EFFECT, have it's effects patch selected in the EFFECTS window, then for each track you want the EFFECT LOOPED to be added to, you just press the CH-Edit button of that TRACK and find the AUX knob that corresponds to that EFFECT processor and turn it up to add the EFFECT. Looped effects can be added to all tracks this way. That's the big advantage of using LOOPED EFFECTS, is you can use one EFFECT across all TRACKS and INPUTS, don't forget to connect the FX RTN virtual cable in EZ-Routing to complete the LOOP and disconnect when done.

Another thing to keep in mind, once you finish a SUBMIX, you can go back to the tracks that were mixed down and either use TRACK EXCHANGE to move those tracks to V-Tracks to save for future remixing, or you can just select a new V-Track for each of the tracks to have new tracks to record too. In the example above, we used tracks 1 thru 6, each of those tracks have 16 V-Tracks, just click on the 1 to the

right of the track number and a V-Track window opens, there you can select the 2nd V-Track to bring it forward for recording and the V-Track 1 will be saved and you can now record new data to tracks 1 thru 6 but on their 2nd V-Track. See "VS V-Trks, Opti, Undo etc.." doc for more info on using V-Tracks.

MASTERING ROOM BOUNCE

You can also use the mastering room to bounce sub mixes. Just bring up the faders on the tracks you want to bounce and use the mastering room. It doesn't matter which V-Tracks you bounce too just remember which. Also, set it to "Stay Here" instead of "Zero" if the tracks don't happen to start at "To Zero". After you Master/Bounce then use Track Exchange to move the stereo pair of master tracks where you want them.

You could also use Region or Phrase Move with IN, OUT and TO points. Using the mastering room means, what you hear, you get. No mix ups here. See "VS MST BURN.doc" on mastering and "VS CpyMveExchExpt.doc" for more on Track Exchange. This is also good for creating stereo stems of back ground vocals, drum tracks etc. Now, what's odd or can be a bit confusing is this, when you have a track recorded dry and you want to add a reverb to it to be recorded in the mastering, you do not have to connect the FX RTN virtual cable to the destination tracks, that routing is done automatically in the mastering room.

EZ ROUTING TOOLS

To INITIALIZE, or reset all input-to-input channel routings click on "F1(IniPB)" at the bottom of the screen. To CLEAR all input-to-input channel routings click on "F2(ClrPB).

To INITIALIZE all routings to the hard disk recorder tracks click on "F3(IniTra) and to CLEAR all routings to the hard disk recorder tracks click on "F4(ClrTra).

The smallest time delay and volume in sound signal arriving at each of our ears is what allows us to "place" where the sound is coming from. Our ears "pointing" forward creates a different reaction to sound waves arriving from the rear or above compared to directly in front, thus allowing us to pinpoint the sound source in a 3-dimensional spherical position around us.

Therefore if you are sitting in the middle of 2 speakers and the "same sound" arrives at each ear with the same character (time delays and volume), we percieve it to be in the middle. The small time delay you create between "copied" tracks is percieved as TWO sound source even if the volume is the same... thus the impression of "doubled" and the "center" image disappears. But if you are listening off-axis (not eque-distant between the speakers) then stereo imaging becomes biased and small pan position difference starts to disappear.

Most consumer stereo system users hardly ever sit and listen at the "sweet spot". Full Left and Full Right pan of a mono track is much easier to percieve off-axis and away from the "sweet spot".

Stereo panning is a manipulation of these time delays to attempt to re-create a sonic condition that "represents" the various recorded sounds to "be in a space" in front of you. Many forget that "stereo" ASSUMES that the listener IS in the "sweet spot"... equal distance from each speaker.

Understanding "HOW" human ears hear is the basis of stereo playback system.

I create the "time delay" of a mono track by :

Lets say an acoustic guitar...

Make a copy of the track. "MOVE" the copied track "forward" (delayed)in time about 1/4 to 1/2 a frame (1 frame = 1/30 of a second). This miniscule "time delay" makes it sound doubled. Pan each in opposite direction to taste.

Try this after you do the above... Pan the pair of tracks 50% left and 50% right. Set up 2 reverbs. Pan each stereo reverb biased the same 50% left and 50% right. Feed the left dry track to the right reverb and right dry track to left reverb. Set the "pre-delay" on the reverbs to be different with the faster being at least twice the amount of the "time delay" created between the dry tracks.

Additional experiment...
EQ one of the dry track to be a bit more bottom heavy and the other to be a bit more "sparkly".

Use different reverb types for the two reverb pair... like a "plate" on one side and a "hall" on the other.

From on line some where?

*If you have an OS above 2.009 then it is not necessary to Format/Initialize the hard drive in you VS after updating!
*To find out which OS you are running, hold down the TRACK STATUS & CH-EDIT buttons above Fader# 1 while powering up the VS. HOLD the buttons until you see a prompt on the LCD. All 4 digits of the OS will appear on the small LCD on the VS, from there you can answer the prompts with the ENTER/EXIT buttons to load a project.

Updating a VS2480/2400 (From Roland's Site)

You can update the operating system on your VS-2480/2400 from a CD-R that contains the proper update program. You MUST have the following to do this :

- Built in CD-RW drive or a Roland approved external SCSI CD-RW drive (like the VS-CDR3).

- You will also need the latest update CD for your VS model. You can get this from Roland Customer Service (323)890-3700 ext.2289, or you can create your own by downloading and burning the disc image file for the update to your computer's CD-R.

- The disc images to download are on the Rolandus.com website under SUPPORT/UPDATES&DRIVERS/DIGITAL RECORDING & MIXING/DIGITAL RECORDING/VS-2480 (VS-2400/2000).

- Note you will need a Disc Image / CD burning utility installed on your computer (like the PC application ULTRAIso / or Toast for Macintosh)in order to create your own update CD.

- WARNING!! - IT IS HIGHLY RECOMMENDED THAT YOU BACKUP THE DATA THAT IS ON YOUR VS-2480/2400/2000 PRIOR TO PERFORMING THE FOLLOWING UPDATE PROCEDURE.

Procedure For Updating :

1. Put the Update CD in your CD-RW drive.

2. Press [SHIFT]+ [STOP] to shutdown the VS-2480/2400.

3. Press [ENTER/YES] at the "Shutdown/Eject?" screen.

4. Press [ENTER/YES] at the "Store Current?" screen.

5. When it ejects the CD, push the CD tray back into VS.

6. When the screen says "POWER OFF/RESTART", turn the power OFF with the power switch on the rear of the VS.

7. After 10 seconds, turn the power ON with the power switch on the rear. The VS will startup, scan the CD and go into update mode.

8. The VS will ask if you want to update with "System Update?". Press [ENTER/YES].

9. The 2480 will ask you if you want to keep your User Settings. Press [ENTER/YES] or [EXIT/NO].

10. The 2480 will then start updating its operating system.

11. After it's finished, it will ask you to REBOOT.

12. Remove the ejected Update CD from the CD-RW tray and use the power switch to turn the VS OFF.

13. After 10 seconds, turn the power ON. Your VS will boot-up with the new operating system.

Note: AFTER UPDATING, IT IS HIGHLY RECOMMENDED THAT YOU INITIALIZE/FORMAT YOUR HARD DRIVE IMMEDIATELY WITH PHYSICAL FORMAT - "ON" and SURFACE SCAN "ON". WARNING!!!!! – INITIALIZING OR FORMATTING YOUR HARD DRIVE WILL ERASE ALL PROJECTS ON YOUR HARD DRIVE. BACKUP YOUR DATA BEFORE FOLLOWING THIS UPDATE PROCEDURE OR FORMATTING YOUR HARD DRIVE.

Depending on your hard drive capacity, Formatting could take anywhere from 4 to 12 hours for the VS to complete : DO NOT REMOVE POWER FROM THE UNIT during this operation!!

Page 114 - VS-2480 Owners Manual
Page 108 - VS-2400 Owners Manual
Page 117 - VS-2000 Owners Manual

After formatting is completed, you're done and ready to record again!!

*If you have an OS above 2.009 then it is not necessary to Forrmat/Initialize the hard drive in you VS after updating!

*If you have a VS2480CD or DVD model VS, you insert the update CD in the internal burner while the VS is powered up. Then go thru normal shutdown procedures and power off the VS. Once the hard drive stops spinning power up the VS and it should boot to the update CD and you should see prompts on the LCD screen on the VS.

*If you have the VS2480HD model with the external Roland CDR-II or CDR-III Burner you must have the update C in the burner. If your CDR is connected to the VS and is powered up and has the update CD in it all before powering up the VS2480, the VS2480 should boot to the CDR external burner and find the update CD. Then the small LCD screen on your VS should prompt you to update the VS.

NOTE: If you have a VS2480CD model VS, you can install a laptop DVD burner in place of the CD burner in your VS. The VS defaults the CD write speed at CD4x and DVD1x but here's the catch. DVD2x is as fast as CD18x so DVD1x is equal to CD8x when it comes to burning backups. Also, DVDs hold 4.7GB of data, that's 4700MBs and CDs only hold 700MBs so 5 or 6 CD backups will fit on one DVD in far less than half the time it takes to backup to CD.

I recommend you do this your self and save hundreds of dollars compared to buying the VS2480DVD model or an external DVD burner. It takes about 30 minutes to change them out plus you will also know where the hard drive is and can change it on your own as well. Hard Drive specs: 7200RPM, 8MB Cache, ata/100 or 133 Interface. No SATAs! Download the "Converting the VS2480CD to VS2480DVD" PDF from this direct link and buy a Panasonic UJ-845-B Slot Loading DVD/CD Laptop Burner….
http://www.rolandvs2480.net/VS2480CD%20to%20vs2480DVD%20Conversion/Convert%20your%202480CD%20to%20a%202480DVD.htm
The UJ-85J REPLACES: UJ-811, UJ-811-B, UJ815, UJ-815, UJ-815-B; UJ825, UJ-825, UJ-825-B; UJ835, UJ-835, UJ-835-B, UJ-840-S, UJ845, UJ-845, UJ-845-B model DVD Burners that have worked and even the UJ-845-S or UJ-845S model has worked. I have not heard of the UJ-85J being tried out in a VS2480CD as of yet. Also, the Panasocic/Matshita UJ-845-B and the UJ-850 and UJ-870 was used most recently!
The VS2480DVD comes with a UJ-840-S installed.

Link above is from Brett's web site at this link…
http://www.rolandvs2480.net/

You'll be glad you did. If you need more help with it contact me at Fcgjabq@aol.com
Also, the new VS2480DVD comes with the Matshita DVD-RAM UJ-840-S model burner and the Matshita/Panasonic UJ-845-B is the latest model to work with the VS2480CD. Also, the UJ-845S, UJ-850, UJ870 model has worked, the UJ870 shows up as UJ870QJ in the CD-R Write window. Arjan van gog on VSP, used a UJ-875 BXM Master DVD Burner and it worked.

VS DIAGNOSTIC MODE
Hold down the PAGE button and F1 on the VS and power up the unit. Keep holding the buttons down until you see a prompt on the small LCD on the VS. From here you can check all of the functions of the VS, be sure not to press the wrong buttons on the screen or you could accidentally format your hard drive.

FORCE INITIALIZE/FORMAT HARD on start up.
Hold down both the CH-Edit button and Track Status buttons above fader # 4 and keep holding till you reach the LCD with a prompt. Use the ENTER/EXIT buttons to answer the prompts to format the hard drive. This will erase all data currently on the hard drive.
*Note: This is also a way to get the VS back up and running after a start up has failed or you have shut down improperly.

OS VERSION NUMBERS, to display all 4 digits.
Hold down the CH-Edit and Track Status buttons while powering up the VS, hold until you see a prompt on the small LCD. Answer the prompts to load a project.

VS2480 Fan Specs.
San Cooler 80 by Sanyo Denki
Model: 9A0812L403
Voltage: DC 12V
Current Draw: 0.06A

VS2480CD Hard Drive Model 1C35l090AVV207-0
Hitachi Deskstar 80GB, 7200RPM, ATA/IDE June 2003 N155
CD Burner is a UJDA340

VS2400CD Hard Drive and Burner models
Maxtor Fireball 3 ATA/133 40G

CD Burner UJDA360 Panasonic April 2003

V-Tracks-
Next to every track's number is it's V-Track number, which would be a 1. Just click on one of the Track's V-Track's number 1 and a window opens up. The first V-Track is the one that, that track number has recorded your first take on. In the V-Track window, it will be a small black rectangle and a check mark beside it. "[Check mark, 1(rectangle):V.T 1- 1]" thru "[16_:V>T 1-16]" The other 15 V-Tracks will be smaller black dashes. If you want to save a new TAKE of that track on a V-Track then Check Mark a different V-Track in the V-Track window, usually it's "[2_:V.T 1- 2]". Then Click the Track's Number to EXIT the window and next to that Track's number will be number 2 for the V-Track you just selected.

UNDO&OPTIMIZE.
Recording take after take. If you just recorded a take and you don't want to keep it then immediately PRESS "UNDO" and in the UNDO window click on "ENTER" and that erases that bad TAKE. Another way to do this is, after you have recorded all of the tracks that you want to keep up to this point and you want to get rid of all of the re-recording HISTORY then Click on PROJECT> and select OPTIMIZE. This will erase all of those bad takes but be sure you do not need to go back and change anything before OPTIMIZING your project! Also, NEVER UNDO an OPTIMIZE, your project will disappear! The only way to retrieve the data is to REDO the UNDO by pressing and holding SHIFT + UNDO. To check the history map, PRESS UNDO and then PRESS EXIT/NO to shut it without undoing anything.

V-TRACK with EXTRA TAKES.
If you want to keep a recording TAKE, let's say on Track 5, then click on the number 1 next to the 5 for track five, and in the V-Track window check mark "[2_:V.T 5- 2]" then click the 5 on track 5 to EXIT the V-Track window. Now you can record a second TAKE on Track 5's V-Track # 2 and to the right of Track 5's number 5 will be a 2 for V-Track 2. There are 16 total V-Tracks per track.

AUTO PUNCH. (Pg 192 in VS Manual)
If you want to perform an AUTO-PUNCH, cue up the track's time line to the IN point and press and hold the "A.PUNCH" button down and press the IN button and release both, a RED down arrow will appear above the tracks in the RULER. Now cue the track's time line to the

OUT point and press and hold down the "A.PUNCH" button and press the OUT button and release both, another RED down arrow will appear with a RED line connecting the two RED arrows.

NOW let's say Track 5 is the one to punch IN & OUT of, press it's Track Status button till it's flashing RED. With your jog wheel back the time line up to before the IN point to give you time to get ready for the take to record and get in time with the beat. [You can place a LOCATOR button here as well if it’s lit just press 1 on the black area keypad, now you can cue up for several tries.] Now press Record and then when ready press Play. The music will play and when it reaches that IN point it will record on Track 5 until it reaches the OUT point where it will automatically exit record.

Press STOP and turn the JOG wheel back to past the IN point and PLAY and listen to your take. You can leave the track flashing RED until you are sure you are keeping that take, if not then press UNDO and ENTER to erase it then press Record and Play and do it over or if you are keeping that take then press the Track Status button till it turns GREEN for PLAY.

To get rid of the A.Punch markers hold down the "CLEAR" button with your left index finger and with the mouse in your right hand L-Click on the A.Punch's RED arrows while holding down “CLEAR” and the RED arrows with line will disappear. *If you do not do this, then when you try to record another track of audio, the VS will refuse to engage the record button.

MANUAL PUNCH-IN/On the Fly.
ARM the track to punch in on, back it up before the point you want to punch in at, play the song and when the VS gets to the point to punch in, press the RECORD button. When it gets to the point to punch out and stop recording press the RECORD button again. When done press STOP.

AUTO or SOURCE.
Also, during Auto-Punching some people like to hear the music play up to the edit point and after and some like to hear only the in point to out point section of music. To switch this parameter back and forth to do one or the other Select UTILITY> PLAY/REC PARAMETER> and

in that window under "RECORD MONITOR" on page "F1 Param1" place a check mark by "SOURCE" or "AUTO" then click EXIT.

NOTE: In that same window on page "F2 Param2" is your PREVIEW Scub Lenghts and Preview TO & FROM times you can change by L-Clicking with the mouse and moving it up and down. I have mine set at 1 Second, normally the default is too little time to understand what I'm hearing, now click EXIT to get out of this window and move on to the next item.

REGION COPY.

To copy a piece of one track to the same track but in a new position to cover up another piece of the same track, like copy a "chorus 3" vocal on track 6 to cover up a bad "chorus 2" vocal, do the following. Turn your jog wheel and place the time line at the beginning of "chorus 3" and press the IN button, then jog to the end on that chorus and place the time line there and press the OUT button.

Now jog to the beginning of "chorus 2" and press the TO button. Make sure your IN and TO points match the same beat and timing in each piece of that track 6. Now select TRACK, at top of screen, and select REGION COPY, when the REGION COPY window opens find the "F" button marked "SEL TRK" and click it, now the SELECT TRACK window opens, next to TRACK" 6-1→" place a check mark and you will see it change to "6-1 → 6-.1" so leave it there and click "F5 OK."

You will have to answer "Region Copy are you sure" by clicking "YES" and that's it. If you want to redo it just press the UNDO button and click "ENTER" and try again. **Make sure there are not CHECK MARKS in other boxes from previous copies when selecting track.

*Also, PRESS SHIFT+STORE often, to save your project during the process. Optimizing a project can cut down on project size as well. It cleans up the old editing data from erasing and editing. If you do Optimize, make sure that there is noting left that you need to UNDO.

I always optimize when I am certain the song is done and that I have edited out all un-needed data. This cuts back on the amount of data to be backed up to DVD-R or RW or CD-R or RW disk later. Some projects at 250MB can wind up as small as 150MB after erasing extra data, and optimizing a project. This means you'll need fewer disk to backup to in the end.

MUTE & SOLO ETC.

On your HOME screen you'll notice that to the right of the area where you can have track names entered into, there are grayed out letters in boxes, "M", "S", "R" and "P." No, that does not stand for Manufacture's Suggested Retail Price. The first two letters we will discuss here. "Mute" & "Solo" because they can cause so much confusion in the future if one of them is on, especially Solo.

Click on the "M" and you will Mute that track, meaning you will not hear it play but will all the others. To Solo a track you can click on the "S" and it will light up BLUE. Soloing a track means that this track is the only one that will be heard out of the 24. If you accidentally have a track with nothing recorded on it Soloed then you will not hear any of the tracks that are recorded.

Click on the "S" next to any track and watch at the bottom of the HOME screen to the left of the REMAIN graph. You will see a BLUE Solo flashing. Do the same for Mute and both will flash, Mute to Solo to Mute etc. If you happen to have an INPUT Muted or Soloed you may not know it while looking at the tracks on the HOME screen.

If you do not see any of the M's or S's lit but see Solo or Mute or both words flashing at the bottom of the screen then do this. At the very bottom of the list of M's and S,s are tiny little black up arrows in grayed out boxes, click on those to turn off all of the Mutes & Solos. To the right of those are the "R" and "P." The "R" is the Auto-mix Status button as on the VS and the "P" is for the Phrase Seq. Status button. The "PLY" acts like the TRACK STATUS buttons on the VS. Click on it to select from "PLY" for play to "OFF" to "REC" for arming a track to record.

I know a lot of this is logical but I just wanted to make sure that users understood that these buttons can solo and mute tracks and that

there has been some confusion in the past with users not hearing their tracks play. Even recording new tracks, seeing the gray record line of data as they record, then when they play the track, nothing! The final solution to the problem was to click on the ting little black arrows at the bottom of the M's and S's on the HOME screen.

CH-LINK TRACKS & INPUTS

Linking TRACKS for a stereo input is easy enough to do. Press TR1-16 first. Now, you can either press the CH-Edit button for the odd numbered track and go to the CH-Edit page and find the CH-Link virtual button and click it or hold down the CH-Edit button of the odd numbered track and press the even numbered one's CH-Edit button until you see them link on the HOME screen in the track list. For linking INPUTS, press IN1-16 and do the same with their CH-Edit buttons or go to their CH-Edit page and click on the CH-Link virtual button.

When bringing in stereo signals from an out side source, drum machines, keyboards etc, you will need to LINK both the INPUTS and the TRACKS to get a stereo signal recorded to the tracks. Either have them both LINKED or you can try UNLINKED but never have the INPUTS linked and not the TRACKS. This will confuse the VS and you will probably wind up with everything sounding centered.

USING LOCATORS

To the left of the JOG wheel are buttons numbered 0 thru 9, like a key pad with a dark gray background around them. Please, look at the VS and find them, OK? Above it says "Locator/Markers/Scenes"

The easy way to use these multi function buttons is to use them as locators! It requires the least thought to use them as locators.

IN TWO EASY STEPS DO THIS...

1) Press the LOCATOR/Bank button to light it up.
2) Turn the JOG wheel until the TIME LINE is where you want to place the LOCATOR ie the beginning of a song.
3) Press any number on that pad you desire to remember that spot on the time line(maybe 0 or 1), the locator button will light up. Done.

*Now, any time you want to go to that same spot on the time line quickly, press that same locator number.

*If you ever want to CLEAR one of the LOCATORS, to the left of the number one LOCATOR is the CLEAR button on the VS, press and hold it down and then press the locator number you want to clear. You have 0 thru 9 LOCATORS you can use this way. There is a way to use up to 99, see the VS Manual for more.

SCENES Storing a scene.

1) Press and hold the SCENE/Bank button to light it up, then press a number on the keypad.
2) To bring up that SCENE from now on all you do is press the SCENE/Bank to light it up, then the number of the scene on the keypad.

Clearing a scene...

1) Clear a scene by pressing the SCENE/Bank button to light it up.
2) While holding down the CLEAR button and press the scene's number on the keypad.

*To learn more about scenes see page 144 in the VS Manual.

.

How to use the Vocoder Effect

The 19-band Vocoder found in all V-Studios provides quite a stunning "talk box" effect. It can make your synth or guitar track sound like it is talking. It does this by applying the envelope or articulation of a vocal track to the instrumental track. The vocal track that provides the envelope can be either a pre-recorded vocal, or you can even plug in a microphone and use the vocoder in real-time during a performance!

When you use the vocoder -there are always two tracks or channels involved, one is the voice, and one is the instrument track. For the voice, you can either use a vocal already recorded, or a live mic input. For the instrument, use a rich, thick synth pad for the best results. You can also experiment with a strumming acoustic or electric guitar that has a lot of sustain. The key is use an instrument track that has continuous sound that doesn't drop out at all, and has a lot of notes playing a time - something with a big, thick chord - lots of harmonics.

Now, to make the Vocoder sound right when you use it, you need to connect it the right way. And there really is only one right way to connect it. To explain, I'll refer to the two parts as the VOICE and the PAD.

First pick the effect. From the Effects List of your V-Studio, choose "VOC2: 19-band" as the best choice. (Note, when you choose this for Effect 1, Effect 2 can not be used.)

To connect the vocoder, it must be inserted on both the VOICE and the PAD tracks. I use the rhyme "Insert right on the mic" to remind me to insert the right channel of the vocoder on the VOICE track (i.e. "InsR"), and insert the left channel of the vocoder on the PAD track. If you have it inserted on both parts, but it doesn't sound right, chances are you got the Insert Left and Insert Right switched. Simply un-insert it all, and then try it again.

Once you press play, you'll hear the PAD track but only if the VOICE track is "talking". If the voice track isn't talking or singing at that particular part of the song, you won't hear anything. When the VOICE track is making sound, you'll hear just the PAD, but as modulated or articulated by the VOICE.

When you want to use the Vocoder with a live mic as the VOICE, just make sure you insert it on the Input Mixer, and not on the Track Mixer.

Fun with the VS Vocoder (or eight easy steps to schizophrenia)

Here's my routing:
Input #1- keyboard
Input #3- microphone

Your routing may be different. If so, you can either substitute your routing numbers for mine (e.g. if your keyboard is Input #2, just substitute Input #2 wherever I mention Input #1) or you can temporarily route your stuff the way that is. Using headphones is a good idea while playing with the Vocoder.

1.) Make sure that your Fader Edit button is showing yellow. This will allow you to manipulate the Input rather than the Track or Effects Retun. What we want to do here is to allow you to experiment with the Vocoder before you record. If you happen to get something that you like, then you can just start recording and the effect will be printed to the track that your Inputs are assigned to.

2.) Looking at the Input Mixer, play your keyboard using a nice rich texture. String sounds usually work pretty well using four or five voice chords. Bring up Input #1 until you can hear the keyboard fairly well.

3.) Now speak into your microphone and bring up Input #3 until you can hear your voice fairly well. I've found compressor on the voice will help a bit with Vocoder experiments.

4.) Play sounds on your keyboard and speak into the microphone at the same time. Can you hear them both well? Good.

5.) Hit the Effect button, and assign FX1 to B84, VOC2:M19Band.

6.) Hit the Select/Channel Edit button for Input #1, and scroll until you find the IN1 FX1 Ins screen. It should be showing "Off" right now. Roll your Time/Value control clockwise until the display shows IN1 FX1 Ins=InsertL. playing your keyboard. You should not hear it.

7.) Hit the Select/Channel Edit button for Input #3, and scroll until you find the IN1 FX1 Ins screen. It should be showing "Off" right now. Roll your Time/Value control clockwise until the display shows IN1 FX1 Ins=InsertR. into the microphone. You should not hear it.

8.) lay a big four or five voice chord on your keyboard while speaking into your microphone. Your voice should "Vocoded". Go ahead, try that Cher song that you've heard over and over and over again. Now try some four-letter words…Now that you've tried some of the easy stuff, think of some even better things, like talking cymbals (if you're into cymbalism). Or think about Vocoding a bass guitar with a kick drum- there's a tight rhythm section!

Talking traffic is cool, too. Gives you a taste of what schizophrenia is all about.

From Brett's site… http://www.rolandvs2480.net/

Backups, Format & New VS8F-3 Card Install

by Frank Griffith

1) Do your backups first!

2) Update the OS, the 2.504 update CD should have come with the VS8F-3 card. Insert it into the CD Tray and shutdown the VS. Now, Power up the VS with Update CD in the CD Drive and follow the prompts on the 3” x 5” screen, using the ENTER button to answer the prompts. Once the OS is updated it will load an INT0000Project.

3) Now it’s ready to be formatted. (See “Formatting Process below)

4) Recover your projects. (Also below)

5) Turn off the VS and install the VS8F-3 card in slot "A", (under the panel on the back of the VS.)

6) Power up the VS and install the VS8F-3 card program and plug-ins using the VS8F-3 card "Setup Disc" CD that's already in the CD bay, there are more detailed instructions that came with the VS8F-3 card. You can Click on CD-RW Mastering Menu and select “Plug-in Install” and follow the directions on screen.

7) After that make a Backup of the "Setup Disc" which is explained later in this document, by clicking on CD-RW Mastering> then select “Plug-in Backup” and answer the prompts on your screen. Yes, it’s that easy.

VS8F-3card Install Procedure

1. Insert 3card SETUP disc
2. Press CD-RW and the menu screen should open.
3. Select page 2 "Plug-in Inst" and YES/ENTER
4. Press "F5 Install" and the install menu should open.
5. Press YES/ENTER and the installation should begin
6. Here the "Authorize" popup should appear so press YES/ENTER to Authorize, if not...
7. Press EXIT/NO to install the "Trial Version"
8. If you pressed YES/ENTER then authorization will begin and be written to the setup disc and hard drive.
9. Confirm by pressing YES/ENTER

10. When done the CD-RW menu will open and you can remove setup disc.

NOTE: It has been found that once you "Authorize" a plug-in with a key VS8F-3card in slot "A" you can later re-install the "Authorized" plug-ins with that key VS8F-3card in any slot. If you buy a new plug-in, you have to have the key VS8F-3card that "Authorized" the other plug-ins back in slot "A" to install a new plug-in. Even if you have all VS8F-3cards in all slots, all plug-ins have to be installed and "Authorized" with the single key VS8F-3card that install and "Authorized" the other plug-ins. It appears that you can not run 2 key VS8F-3cards in the same VS and have different plug-ins "Authorized" by different VS8F-3cards.

Formatting Process (See "BkUPFmtRcvy.doc" for more detail on a Formatting HD.)

1) Do backups first!
2) If update is needed power up the VS with CD in the VS. This makes the VS boot from disc, answer the prompts on the small LCD using the ENTER button on the VS. It'll update the OS in minutes. To check the OS version later, power up the VS holding down the Track Status & CH-Edit button above Track # 1. The VS will show you all four digits of the current OS on the LCD, again answer the prompts using the ENTER button on the VS to load a Project.
3) Format the HD. 80GB=6 _ hours, 120GB=13 Hours.
4) Install VS8F-3 card program and all plug-ins.
5) Recover your projects.

INSTALL MORE PLUGINS

Once the VS8F-3 card plug-ins have been installed, third party plug-ins are easier to install.

1) Insert the New plug-in Installer disc into the VS2480's CD-RW
2) Click on CD-RW Mastering> select PLUG-IN INSTALL>
3) The Plug-in Install window opens, click "F5 INSTAL"
4) It asks "INSTALL?" click "YES", then it ask "AUTHORIZE?" click "YES" and "ARE YOU SURE?" click "YES" and wait…
5) The disc will eject once the plug-in has been installed.

LOADING & USING A PLUG-IN

If you have you VS8F-3 card in slot "A" then we select the number one Effect to use the plug-in. Some plug-ins can use up Effects 1 & 2, the full effects processor in slot "A." Now after you Insert Effect1 on a track, let's use a plug-in on it.

1) Click EFFECT> select EFFECT1> and the plug-in window opens.
2) Click "F1 Plug-In" and the window changes to a list of plug-in programs that are installed.
3) Click on the one you want to highlight it and click "F5 Select."
4) Now the window returns to the one before, after "Product Name:" should be the plug-in name.
5) Click on "F3 PATCH" to patch in a preset effect you want to use.
6) Highlight the Preset name in this list and click "F5 Select" to load that patch into the plug-in and wait…
7) The window returns, now click "F4 EDIT" to load the visual of the plug-in on screen so that you can adjust its parameters or just exit out of it.
8) Now press PLAY on the VS and listen to what this plug-in sound like and make adjustments as needed if the edit window was left open.

9) When done click “F6 EXIT” and the plug-in leaves the screen but the effect is still INSERTED on that track for use as you left it.

If you use the presets then they will load the plug-in as you left it the last time you shut down. If you make special changes to a plug-in’s patch then click “F5 SAVE” and save it as a “User” Patch. To select other patches just go to EFFECT> EFFECT1> then click on “F3 PATCH” and highlight another, click “F5 SELECT” and then “F4 EDIT” to bring the visual back up. Once a plug-in has been selected in an EFFECT, it’s easy enough to go to that effect and PATCH in different patch selections and use the EDIT button to see what parameters are there to use.

BACKUP PLUG-INS

Once they are installed in the VS you should make a backup copy to a CD-R. It’s pretty easy to do, here’s how.

1) Insert a blank CD-R into the VS’s CD-RW Drive
2) Click on CD-RW Mastering> select PLUG-IN BACKUP> and the PLUG-IN BACKUP window opens
3) Highlight the plug-in to backup by clicking on it..
4) Now click “F4 BACKUP” it will ask “Backup?” click “YES” and “Really Sure?” click “YES” and wait….
5) It will eject the disc when done so click “F6 EXIT” to close the window.

USER Settings on Plug-ins

Unlike the VS8F-2 card’s, you can not save USER settings you create using the VS8F-3 cards patches. You can do a Plug-in Backup and save your settings that way but you have no USER settings you can save on the VS8F-3 card. Also, SysEx does not work with VS8F-3 cards either.

VS8F-3 Card Install AGAIN! **By Frank Griffith**

Follow the instructions that came with the card and this.

1) Do your backups first! See "VS BfUPFmtRcy.doc" for step by step info on this, Formatting & Recovering projects.

2) Update the OS, the 2.504 update CD should have come with you VS8F-3 card. Insert it in the VS with it on, shutdown, power back up and watch the small LCD on the VS for prompts to answer using your ENTER/EXIT buttons. When it's updated it loads a project, eject the Update CD and move on to the next step.

3) Format the Hard Drive, seen manual for steps on formatting or my "VS BkUPFmtRcy.doc" for step by step info on this. Then install the VS8F-3 card with the VS off.

4) Power up the VS and install the VS8F-3 card program and plug-ins using the VS8F-3 card "Setup Disc" CD that came with the VS8F-3 card, there are more detailed instructions that came with the VS8F-3 card, follow them. Also the VS8F-3 card "Setup Disc" will ask you if you want to "Authorize," answer YES. This will code the plug-ins to work only with that VS8F-3 card and allow you full use of the VS8F-3 card and plug-ins. The VS8F-3 card's program and plug-ins are on the same "Setup Disc" CD and installed together.

5) After that make a Backup of the "Setup Disc" by going to CD-RW Mastering and finding "Plug-in Backup" on the menu and select it. In the window that opens, highlight the VS8F-3 card program name and click "OK" and insert a blank CD-R into the VS.

NOTE: Have the VS8F-3 Owner's Manual handy when installing the card and programs. It'll only make since as you do the install, that's what worked for me. You can also call Roland's Free Tech line at 1-323-890-3741 M-F biz hours. Good luck.

<u>Install Third Party Plug-ins</u>
1) Insert the plug-in disc and select CD-RW Mastering> Plug-In Instal
2) The VS scans drives and the plug-in window opens. Now click on "F5 INSTAL" a message ask "Install?" and you click "YES".
"Authorize?" and you click "YES", "Really Sure?" and click "YES"

3) And the Plug-in Install progress bar begins. Wait a couple of minutes and the "In Preparation" progress bar starts then "Plug-in Authorize" begins and then "Eject Disc." Done.
4) Now go back to the CD-RW Mastering Menu, Insert a blank CD-R and select Plug-In Backup. The VS scans the drives and a "Plug-In Backup" window opens.
5) In this window highlight the name of the plug-in to backup and click "F5 BACKUP." The VS scans the drive and ask "Backup?" and you click "YES", "Really Sure?" and click "YES" and the VS scans the drive, "In Preparation" progress bar begins., then "Plug-In Backup" progress bar begins then "Eject Disc." Click "F5 EXIT." Done.

INCREMENTS of DATA **By Frank Griffith**

1) Check out the time in the upper left hand corner of the HOME screen. There is a yellow line under one of the double zero digits. There's 00h00m00s00f00 for hours, minutes, seconds, frames and something smaller, "Ticks" I guess.

2) Press one of the Left or Right cursors to move the yellow line to seconds or frames and turn the JOG wheel. The TIME LINE moves in the smaller increments. This is good for use when editing tracks with them zoomed in on the wave files using WAVE DISP. You can easily line up the TIME LINE, (The RED LINE that crosses all tracks vertically) in very small increments for placing edit points.

WAVE DISP Button (Wave Display)

Any track that is selected will be displayed and fill the track screen when you press the **WAVE DISP** button.

So when you are doing a REGION COPY & MOVE you can use the WAVE DISP button to really zero in on the wave form and place your IN, OUT & TO points precisely. These buttons, IN, OUT, TO, FROM are on the second row of buttons below the LCD screen on the VS unit.

Click Home and let’s REGION COPY something. Let’s say you want to repeat the last word on a verse once on track # 5. Move the TIME LINE to the front of the word just before you hear it play or play the track up to just before you hear it and press STOP.

Now, on the HOME screen click on Track #5’s five(5) on the right of the HOME screen, to select it and highlight that track.

Now press the WAVE DISP and see if you can see the word’s wave on the wave form, there will be a lot of tall vertical hash marks across the horizontal line. That’s the word. The flat line to the left of it is quiet space where you should place your IN point, but not just yet.

Remember how far from the WORD WAVE your in point is. Using INCREMENTS as explained above, you can press the left or right cursor buttons above the JOG wheel to change the amount to move. Watch the TIME DISPLAY and place the YELLOW/ORANGE colored

line under “f” for frames by pressing the right cursor button>. Now place the TIME LINE on a flat, quiet place on the WAVE DISPLY by turning the JOG wheel.

When the TIME LINE is in place, press IN. Now press HOME to come out of WAVE DISP and play the track and STOP it at the right end of the word, just after it.

PRESS WAVE DISP and see where your TIME LINE is. Use the JOG wheel to place the TIME LINE on a flat place on the WAVE and now press the OUT button. Now you have placed and IN & OUT on this piece of wave for it to be selected, highlighted as the chunk of data to COPY later.

SINCE we want the WORD to repeat it’s self, we just happen to be in the perfect spot to place the point where we are sending the selected word TO. We want it to come in and repeat where it went OUT. So… PRESS the TO button now so it’s in the same place the OUT point is. If you want it to be a beat later, then PLAY it and STOP it in the right place, and place the TO point in the new spot.

Now go to TRACK menu and select REGION COPY, a window opens, click on “F1 Sel Trk” and on that window place a check mark in the empty box to the left of
5-1 → -“ and it’ll turn into “5-1 → 5-1” meaning you are copying a portion of track # 5 to track # 5.

Now click OK and then click on EXIT to close the REGION COPY window. Play the tracks and see if the edit did what you wanted. If not you can press UNDO and then ENTER to try it again.

*REGION COPY will copy a piece of audio and send it “TO” any track on the time line you want to send it “TO” leaving the original part in tact. REGION MOVE will MOVE that piece of audio to any track on the time line but not leave an original in tact. To send a copied piece of audio to a different track or V-Track, just select that track in the “F1 Sel Trk” window mentioned above. It’s that simple.

VS2480 SHORT CUTS…….PS/2 KEYBOARD **By Frank Griffith**

F1 – F6 = VS F1 – F6 ……F7 = Dislay the EZRouting Screen
SHIFT+ F7 = EZ Routing>EZ Patch Bay> ……...F10 = Track Menu
SHIFT+ F8 = Mastering Room ……F11 = Effect Menu
F9 = Project Menu ……F12 = Utility Menu

PRESS

Space Bar =……..Start, Stop and Continue Project
Arrow Keys =……. Moves the cursor on the display
SHIFT+ Arrow Keys =……Zoom in and out vertically and horizontally
Ctrl+ S =……Stores the current project
Ctrl+ Alt+ Delete =……Shuts down the VS2480
Tab =……Page button
Enter =……Enter/Yes or Left mouse button
Escape(Esc) =……Exit/No
Home = Home screen on VS

VS2480 FUNCTION BUTTONS SHORT CUTS

Quick Routing = Hold [Track Status] / Snapshot = [Automix]+ [Snapshot]+ [TAP]

Solo Ch. Clear = [Clear]+ [Solo (IN 1-16)] /Automix = [SHIFT]+ [AUTOMIX]

Mute Ch. Clear = [Clear]+ [Mute (IN 17-24)] / Marker = [Shift]+ [MARKER]

Automix Status = [Automix]+ [Automix Status] / Tempo Map = [SHIFT]+ [TAP]

Tr. Status REC = [REC]+ [Track Status 1…24] /REDO = [SHIFT]+ [REDO(UNDO)]

Locator Clear = [Locator (Bank)]→ [Clear]+ [0…9)] /Marker Erase = [CLEAR]+ [TAP]

Scene Clear = [Scene (Bank)]→ [CLEAR]+ [0…9] / Jump to IN point = [SHIFT]+ [IN]

CD Track Number = [CD-RW (Mastering)]+ TAP /Jump to OUT point = [Shift]+ [OUT]

Automix REC = [Automix]+ [REC] / Jump to FROM point = [JUMP] + [FROM]

All Markers Erase = [SHIFT]+ [CLEAR]+ [TAP] / Jump TO point = [JUMP]+ [TO]

Mastering Rom = [SHIFT]+ [Mastering (CD-RW)] / Loop From/To = [SHIFT]+ [LOOP]

Sync Parameter = [SHIFT]+ [EXT SYNC] / Reset Fader/Pan = [CLEAR]+ {CH-EDIT]

Auto Punch IN/OUT = [SHIFT]+ [AUTO PUNCH]

Tr. Status PLAY = [STOP]+ [Track Status 1…24]
Found in VS Manual and Stickers

What is the HoldID for?

FAQ's - Tutorials - Tips

There are a number of VGA and LCD commands that say ****ID next to them. What this does is give you two screens to work with at once.

For example, you may push the IDHome button and the VGA screen remains the same but the LCD on the VS2480 changes to different views.

If you like that view you can push the HoldID button and that screen will stay displayed even if the VGA screen changes pages. You can have mixer view on the VS2480 LCD at all times or various others, a very handy feature.

From Brett's site on line.
http://www.rolandvs2480.net/

PC AUDIO & PERFORMANCE

START> Control Panel>Classic View click System> Advanced> under Performance click Settings> then tick for Best Performance.

Control panel> Classic View>Sounds and Audio Devices> Sounds tab> Sound Schemes, in the drop down menu select NO SOUNDS.

Control panel>Classic View>Display> Settings> 1024 x 768 & Color @ Highest[32 Bit]. For Sonar Producer 4 select 24bit.

Control Panel> Classic View> System> Advanced tab> under Performance click Settings> Advanced tab> there are 3 items: Processor Scheduling tick for BACKGROUND, Memory Usage tick PROGRAMS, Virtual Memory @ 1280, click Change to reset number if smaller than 1280. Why BACKGOUND? This lets your ASIO, DirectX and VSTs run better with less latency.

Right-Click on bottom Task Bar> select Properties> uncheck “Show Clock”, this saves on CPU usage.

START> Control Panel> System> Automatic Updates> Select “Turn Off Automatic Updates.” Check once a week when you want too.

START> Control Panel> System> System Restore tab> Select “Turn Off System Restore” and click “OK.” This can happen at the most annoying times plus it uses up disk space.
I recommend you set your own restore points weekly or monthly by going to START> All Programs> Accessories> System Tools> System Restore> and follow the directions given to create a restore point. You will have to turn it on first. Or, just move the space slider to halfway to have it use less disk space.

Disable Remote Desktop and Assistance. START> Control Panel> System> Remote tab> Uncheck “Allow Remote Assistance…” and “Allow users to connect…”

START> Control Panel> System> Hardware tab> Device Manager> [+] Disk Drives open> Highlight the Hard Drive and right click> Select “Properties”> Policies tab> Uncheck “Enable write caching on disk”

and click “OK.” You see the warning is has there about having it checked and data loss?

START> Control Panel> Power Options> Power Schemes tab> Select “Home/Office in the first window and then select “NEVER” in the rest and click “Apply.”

START>Control Panel> User Accounts> click on “Change the way users log on or off”> then uncheck “Use Fast User Switching” And click “Apply Options.” It uses too much CPU power.

Right-Click on Desktop> Properties> Desktop tab> select Background None, and on Screen Saver tab> None.

Also go to Internet Explorer> Tools> Internet Options> General Tab "Delete Cookies" and click “OK”, then “Delete Files” and click “OK”, now wait on the hour glass to go away & “Clear History” then click the “YES” and then Internet Options box’s “OK” to shut the window.